

**United States Army
Health Care Studies
and**



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Clinical Investigation Activity

PROCEEDINGS
FOURTH USERS' WORKSHOP ON COMBAT STRESS;
LESSONS LEARNED IN RECENT OPERATIONAL EXPERIENCES

A. David Mangelsdorff, Ph.D., M.P.H.
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Consultation Report #85-002

January 1985

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**US ARMY
HEALTH SERVICES COMMAND
FORT SAM HOUSTON, TEXAS 78234**

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The Proceedings document the presentations at a workshop conducted in Sep 1984 on the lessons learned from recent operational experiences. The operational experiences included: training exercises at the National Training Center, REFORGER, and in Latin America; peacekeeping experiences in the Sinai and in El Salvador; combat experiences in the Falklands, Grenada, and in Lebanon; and handling of psychiatric casualties and returned hostages. Training exercises for teaching techniques for dealing with stress reactions were discussed.		

PREFACE

This proceedings documents the presentations made at the Fourth Users' Workshop on Combat Stress held at Fort Sam Houston, Texas in September, 1984. The dedication of the participants contributed to the excellent discussion and exchanges. It is hoped that future workshops will build on the knowledge learned from this one. We would like to thank Mrs. Sue Akins for her superb efforts in transcribing the tapes of the conference; her work is commendable.

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DEPARTMENT OF THE ARMY
US ARMY HEALTH CARE STUDIES AND CLINICAL INVESTIGATION ACTIVITY
FORT SAM HOUSTON, TEXAS 78234

HSHN-2

6 September 1984

SUBJECT: Fourth Combat Stress Workshop

TO: All Participants

1. This is to confirm that you will attend the Fourth Combat Stress Workshop on 18-21 September 1984, hosted by the Health Care Studies and Clinical Investigation Activity, Fort Sam Houston, TX 78234. The location of this Activity is indicated on the attached map (Incl 1).

2. The Workshop sessions will be held in room 2113, building 2841, which is the Academy of Health Sciences main classroom building. This is location 10 on the attached map.

3. In the absence of other arrangements, you should take a commercial taxi from the San Antonio International Airport to the Billetting Office located in building 367, map location 21. If you arrive outside of normal duty hours, 0730-1630 Monday - Friday, you will need to go to the back of building 367 to gain access to the billetting office. As adequate on-post quarters are available, securing statements of non-availability will be an individual responsibility.

4. A tentative agenda and information for participants is attached as Inclosure 2. The list of participants in this Workshop is attached as Inclosure 3. You are encouraged to confirm that you will participate by contacting Dr. Mangelsdorff at autovon 471-4541/2511, or either CPT(P) King or MAJ O'Brien at autovon 471-4880/5880.

FOR THE COMMANDER:

3 Incl
as

DAVID V. WRIGHT
MAJ, MSC
Deputy Commander for Administration

Fourth Combat Stress Workshop
Fort Sam Houston, Texas
sponsored by the
Health Care Studies and Clinical Investigation Activity

Tentative Schedule:

Monday 17 September travel to San Antonio

Tuesday 18th

Morning 0800 - 1130

Introduction

LTC Cecere
Dr Mangelsdorff

Reforger

WRAIR Europe
Ft. Hood

CPT(P) Rock
CPT Melcher

National Training Center

Ft. Hood
Ft. Carson

CPT Melcher
LTC Holsenbeck

Lunch 1130 - 1230

Afternoon 1230 - 1630

U.S. Peacekeeping efforts in:
Sinai

WRAIR Ft. Bragg
101st Airborne Division
El Salvador
Ft. Sam Houston

COL Harris
CPT Miller

COL Garcia
LTC Chermol
SGM Yvarte

Wednesday 19th

Morning 0800 - 1130

Lebanon and Israeli wars
Israeli Defense Force
Walter Reed Army Instit Res
(WRAIR)

Dr Gal
Dr Marlowe
LTC Belenky
LTC Manning

Lunch 1130 - 1230

Afternoon 1230 - 1630

The Falklands
United Kingdom (Royal Navy)

SrgCdr O'Connell

Thursday 20th

Morning 0800 - 1130

Grenada (U.S. Marine/Navy operations)
U.S. Navy Liaison

LCDR Mateczun

Lebanon (U.S. Marine operations)
U.S. Navy Liaison

LT Holmes-Johnson

Lunch 1130 - 1230

Afternoon 1230 - 1630

Grenada (U.S. Army operations)
82nd Airborne Division

MAJ Riggs
COL Harris

Rangers

CPT Fullerton

Friday 21st

Morning 0800 - 1130

U.S. Hostages from Iran
U.S. Air Force

MAJ Mereth

Wrap-up:
lessons learned
directions to pursue

MAJ O'Brien
CPT (P) King
Dr Mangelsdorff

Information to participants:

Military uniforms will be worn at all sessions. Lectures and discussions will be unclassified. Participants are requested to prepare a paper for inclusion in a proceedings to be collected and made available after the workshop. The paper should address at least the following concerns and issues:

- pre-deployment plans for stress casualties
- command support for medical/mental health operations
- training for recognition of stress reactions
- medical/mental health organization
- logistical/supply support for mental health operations
- morale/organizational analyses pre-deployment
- epidemiological/data collection of incidence, treatment, and disposition of casualties during operations
- symptomatology of casualties
- command awareness of casualties and dispositions during operations
- command and organizational changes during and after operations
- debriefings of casualties, commanders, medical and mental health personnel
- follow-up of casualties
- command awareness of medical and mental health concerns

Papers will be due to Dr. Mangelsdorff by 5 October 1984. Your cooperation is appreciated. This conference is being conducted on a deficit budget; any chances you can save us money would be most appreciated. Thanks for your assistance.

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OPENING REMARKS
TO THE
FOURTH USERS' WORKSHOP ON COMBAT STRESS

LTC Fred A. Cecere, M.C.
Commander
Health Care Studies and Clinical Investigation Activity
Health Services Command
Fort Sam Houston, Texas

Good morning, ladies and gentlemen,

I would like to welcome you to the Fourth Users' Workshop on Combat Stress, hosted by the Health Care Studies and Clinical Investigation Activity.

Readiness is a key construct for all military forces. The Knowledge gained through operational experiences becomes invaluable when it can be applied in future situations. The primary objective of this workshop is to provide a forum where you can share your knowledge and expertise from your operational experiences with the other workshop participants. It is hoped that the exchange of information will allow you to update your knowledge and military readiness.

George Santayana, writing in 1906 in The Life of Reason, remarked "Those who cannot remember the past are condemned to repeat it." I hope that you will be able to learn from the lessons of the recent operational and combat experiences and to apply this knowledge to your own readiness plans.

I wish each and everyone of you a pleasant and professionally rewarding experience at this workshop.

STRESS REACTIONS DURING REFORGER:
A STUDY OF HOSPITALIZED PATIENTS DURING THE ANNUAL REFORGER EXERCISE 1983.

Captain Samuel K. Rock, Jr. Ph.D.
United States Army Medical Research Unit - Europe
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Stress reactions are projected as a significant medical problem during war. The loss of manpower will be great, and stress casualties are a potential source of replacement manpower (Ingraham and Manning, 1981) if treated properly. Fortunately, the data available from a variety of sources (Belenky et al. and Glass) indicate that stress reactions can be treated effectively with relatively little demand on resources, unlike most medical problems. In addition, preventive measures against stress reactions appear effective. Unfortunately, most of the data on stress reactions in a military setting come from historical records of different conflicts. These records provide limited data since they were collected for proposed management rather than research. As such they tend to be limited in the richness of information available.

The primary mission of the United States Army Medical Research Unit - Europe (USAMRU-E) is to conduct investigations of stress and to provide data on its frequency, treatment options, and preventive measures. Typically this data is obtained both during field exercises and during normal garrison duties. Each year, the Army conducts a major training exercise in Europe which extends for well over a month and is designed to create as realistic a simulation of war demands as possible within the constraints of safety and available manpower and equipment. This exercise is called Return of Forces to Germany (REFORGER). The USAMRU-E collected the diagnoses reported to HQ 7th MEDCOM from treatment facilities during REFORGER 1982 as part of a pilot analysis of stress reactions to determine if a full scale study during the 1983 exercise would be warranted. Based on the limited analysis possible with those data, a more complete study was designed and executed during REFORGER 1983. The data from both of these exercises are included in this report.

METHOD

REFORGER 82: The source of the data was summary reports of hospital admissions during the exercise period submitted to the Headquarters, 7th Medical Command. These summary reports were compiled daily and listed the individual admissions by name, unit, diagnosis, and deployment country (US or Germany). Each day's summary was examined for diagnoses that could definitely be classified as psychological, as well as, for those that were possible psychological reactions. Examples of definite psychological reactions were: depression, conversion reaction, psychosis, drug and alcohol related problems. Examples of possible psychological reactions were: severe headaches, fatigue, exhaustion, lower back pain (not caused by known trauma), and other somatic complaints that may have had a psychological basis. These data were first grouped on the basis of definite or possible status. These groups were then analyzed both individually and together in order to obtain a total, worst case estimate. Standard statistical techniques were used in the analyses. Relationships

between total number of participants in the exercise, total patients, and stress reactions were explored.

REFORGER 83: Reports of hospitalized patients were submitted daily to USAREUR HQ and examined by a senior member of the research team. Any patient admitted for a diagnosis that possibly could be classified as stress-related was identified for interviewing. Non-stress casualties were also identified at the same time to serve as control interviews. Members of the research team were then dispatched to test and interview the selected casualties. Patients hospitalized in the Netherlands were not interviewed. Other selected patients were not interviewed because they were discharged prior to the arrival of the research team members.

Each patient interviewed was given the General Well Being (GWB) and the Cohesion Index, and then interviewed by the team member using a structured interview worksheet. Demographic data on each individual was also obtained.

ANALYSIS

REFORGER 82: There were a total of 483 casualties during REFORGER 82 exercise that resulted in hospital admission. There were other casualties not reported because they were treated at local aid stations or other field medical facilities. Of these casualties 35 were classified as definite psychological reactions, and another 38 were classified as possibly psychological reactions.

The mean number of casualties per day was 9.-- and the mean number of possible stress casualties per day was 2.--. The modes and medians for casualties and stress casualties demonstrate that the curves are positively skewed and this fact should be taken into consideration when interpreting the results.

The interesting results from the correlation matrix are in the relationship between casualties and country of deployment, as the relationship is much stronger for Germany as country of deployment ($r=.81$ and $r=.65$) and between possible stress casualties and sex, as males show a stronger relationship than females ($r_{\text{stress: male}}=.95$ and $r_{\text{stress: female}}=.90$). There is also a relationship between country of deployment and sex, where both males and females from Germany showing stronger relationships than males and females from the states, but the relationship is stronger for the males than the females.

A Chi-Square analysis (χ^2) of possible stress casualties crossed on rank and sex showed an overrepresentation of women at sergeant (E-5) rank and an underrepresentation of men ($\chi^2 = 20.899$, $df=7$, $p<.05$). Comparisons of rank x location and sex x location were not significant.

REFORGER 83: The total number of hospitalized casualties reported during REFORGER 83 was 418, 65 fewer than hospitalized during REFORGER 82. Of these casualties the research team was able to interview 111, 66 of whom were classified as stress related. Other characteristics of the REFORGER 83 group that are particularly noteworthy are the limited number of women ($n=19$), and the unequal numbers of individuals that occur in the different analysis categories. The small number of women and unequal sample sizes of

other categories compound the difficulties of analysis.

HYPOTHESES:

1. COMBAT ARMS VS COMBAT SUPPORT/SERVICE SUPPORT: One hypothesis was that soldiers in the combat arms would be more resistant to stress than soldiers in the combat support and combat service support branches. This hypothesis was tested by examining scores on all three dependent measures for the combat arms vs. the other groups. The combat arms patients scored higher on the cohesion index than the non-combat arms ($t=2.2263$, $df=49$, $p<.05$). However, there were no other differences between the combat arms patients and the other patients. While they score higher on the cohesion measure this sample shows no difference in numbers hospitalized or scores on the GWB and rates stress.

2. RANK: Another hypothesis was that the higher the rank of soldiers, the less likely they were to be stress casualties. This hypothesis was examined by comparing patients of low rank (E1-E4) with patients of higher rank (E5 and above) using a χ^2 analysis. No significant differences were found when looking at the numbers diagnosed as stress patients. There was a weak, but significant relationship between rank and GWB score ($r_{\text{rank-gwb}}=.2071$, $p<.05$, $r^2=.0429$) indicating some tendency to a higher well-being score for the higher ranks.

3. SEX: The hypothesis that female soldiers would be more susceptible to stress than male soldiers was tested as part of an ANOVA. Main effects were found on the sex variable when the dependent variable was rated stress ($F=3.8410$, $df=1,99$, $p<.10$), with women rated higher on stress than men. There was an interaction effect between sex and location (US vs GER) on the ANOVA with Cohesion Index scores as the dependent variable ($F=3.9575$, $df=1,99$, $p<.10$). A χ^2 analysis crossing sex and cohesion score was significant ($\chi^2=5.9094$, $df=1$, $p<.05$) but the relationship was weak ($\Phi=.2339$, $\text{Lambda (symmetric)}=.0435$). This analysis was done by splitting the cohesion index scores at the median. Women had somewhat lower cohesion scores than men. A χ^2 analysis of sex on rated stress was performed as a follow-up and was also significant ($\chi^2=2.8443$, $df=1$, $p<.10$). Females scored higher on rated stress than males. This was a weak relationship ($\Phi=.1646$, $\text{Lambda (symmetric)}=.0746$). This analysis was done by splitting rated stress at the median. The same analysis with rated stress split into upper and lower thirds had somewhat stronger results ($\chi^2=4.892$, $df=1$, $p<.05$, $\Phi=.2625$ and $\text{Lambda}=.1042$).

4. ETHNIC BACKGROUND: An χ^2 analysis on ethnic background (white vs black) and cohesion index scores showed a weak but significant difference ($\chi^2=3.0767$, $df=1$, $p<.10$, $\Phi=.1772$, $\text{Lambda}=0$). Whites scored slightly better on cohesion than blacks.

5. EDUCATION LEVEL: The only relationship found between level of education and the dependent variables was with the GWB scores ($r_{\text{ed-gwb}}=.2138$, $p<.05$, $r^2=.0457$). Individuals with higher education have slightly higher well-being scores but this relationship is weak.

6. MARITAL STATUS: No differences were found between single and married soldiers on any of the dependent variables.

7. AGE: No relationship was found between age and any of the dependent variables.

A brief explanation of rated stress is needed. Five members of the research team were asked to examine the interview forms of all 111 subjects and rate each subject on a 5 point stress scale (1=very low, 5=very high). A one-way ANOVA across all five ratings showed no significant differences ($F=1.9924$, $df=4$, 547 , $p = n.s.$). In addition, the intercorrelations between the raters was reasonably strong ($.4949 < r < .7458$). Based on these results the rated stress variable was obtained by taking the mean stress rating across all five raters for each subject.

8. DEPENDENT VARIABLES: The Cohesion Index, the General Well Being Scale and the Rated Stress measure were all interrelated. Both cohesion and well-being showed a relatively strong inverse relationship with the rated stress ($r_{\text{coh:stress}} = -.6308$, $r^2 = .398$; $r_{\text{gwb:stress}} = -.6172$, $r^2 = .3809$). There was a less strong relationship between cohesion and well-being ($r = .4901$, $r^2 = .2401$).

DISCUSSION

The main concerns of these studies were (1) whether stress hospitalizations were occurring, and (2) to what extent, during the REFORGER exercise period. The rough data from REFORGER 82 shows a possible stress hospitalization rate of approximately 23%, while the rate during REFORGER 83 was approximately 15.5%. The REFORGER 83 number may well be conservative because it was not possible to interview all the possible stress related hospitalizations.

The rest of the analyses presented concern the characteristics of the stress hospitalizations during REFORGER 83 and the differences between them and non-stress hospitalizations.

The clearest differences were found between those soldiers assigned to units in Germany vs those deployed from units in the U.S. The U.S. based soldiers showed higher cohesion within their units and higher well-being scores than their Germany based counterparts. Conversely, the U.S. based soldiers were lower on rated stress than soldiers from Germany. One explanation for this unexpected result may be that soldiers deploying from the U.S. see the travel opportunity as a positive opportunity to see something of Germany and to get away from their normal routine at home. The Germany based soldiers see only more of the same training they go through all the time. In a combat situation this advantage for U.S. based soldiers may well disappear, or be reversed to favor the Germany based soldiers.

There appears to be some evidence of sex differences on rated stress, but not on either cohesion or well-being. The stress difference is weak, but shows women receiving higher stress scores than men. An interaction may exist between sex and diagnosis (stress vs non-stress), but the data were not sufficient to establish that point. However, women admitted with stress diagnoses seemed less psychologically healthy than males admitted with stress diagnoses. Conversely, women admitted for non-stress diagnoses appear psychologically healthier than males with non-stress diagnoses.

Because the sample contained relatively few women, the more complex analyses were not very effective. Additional investigation of this possible sex difference is needed in order to clarify this result.

The other independent variables examined did not show any direct relationship to the rated stress dependent variable. There were relationships with cohesion and with well-being, both of which are believed to effect stress resistance or susceptibility.

TABLE 1

SYMPTOMS OF STRESS RELATED REACTIONS

Anxiety
Sleep disturbances
Irritability
Tremors
**Depressive affect
Psychomotor disturbances
Guilt
**Conversive reactions
Crying
Memory impairment
Fear - diffuse or focused
Confusion, concentration disturbances
Constricted affect
Impaired functioning
Disturbing dreams, memories
Speech, communication impairment
Flashbacks
Social estrangement, detachment
**Exhaustion, fatigue
**Dissociative states
Decreased appetite
Avoidance behavior
**Gastrointestinal discomfort
Discipline problems
**Headaches
Explosive aggressive behavior
Sensitivity to noise, startle
**Substance abuse

NOTE: Symptoms marked with an ** were found during REFORGER 82.

TABLE 2

1982 REFORGER DIAGNOSES - POSSIBLE STRESS RELATED

Abdominal pains
Abortion
Alcohol abuse
Asthma
Back strain
Bronchial Spasm
Chest pains
Depression
Headaches
Hypertension
Hysterical reaction
Nervous breakdown
Paranoid schizophrenia
Psychosis
Seizure disorder
Situation reaction
Stress reaction
Ulcers

FIRST CAVALRY COMBAT STRESS COURSE

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Combat reaction, combat stress, combat exhaustion, or battle fatigue, are deliberately non-descript terms. They are used interchangeably with "psychiatric casualty." The term psychiatric casualty is a phrase that often scares people, but when used in this context it refers to a normal reaction in an abnormal situation. Any "normal" soldier could be expected to become a battle fatigue casualty, or combat stress casualty, or psychiatric casualty if exposed to enough stresses in combat. All this means is there has been a temporary break down by a soldier, often caused by a lack of sleep, that improved in one to three days with adequate rest. Combat stress casualties occur most often in static defense positions. There is a wide variety of behavioral, mental, or physical symptoms.

Over a period of several decades we have learned how to treat combat stress, in some cases almost by accident. During the Civil War many soldiers suffered from combat stress, at the time called nostalgia. It was then believed these people suffered from defective character and poor moral turpitude. Union soldiers, especially, suffered tremendously high casualty rates among inept leaders, frequently in static defense positions. In 1863, by directive, there were no more psychiatric diagnoses. Psychosomatic hospitalizations soared. Combat stress casualties would not go away.

During the Russo-Japanese War the Japanese Army destroyed rail lines leading to the battle fronts. Because evacuation of the wounded could not be accomplished, doctors, including psychiatrists, were assigned to the front lines. During this war proximity, treatment of psychiatric casualties as far forward as possible, was discovered, quite by accident, to be extremely effective in returning combat stress casualties to duty. As the war dragged on, rail lines were re-established and combat exhaustion casualties started getting evacuated to the rear. The rate of soldiers being returned to duty started dropping. Again, during static defense fighting, combat stress casualties were high.

During World War I most of the war was static defense. Combat exhaustion casualties frequently believed they were victims of a chemical attack and would present some of the same symptoms as soldiers who had been exposed to chemical agents. Another term to come out of World War I was "Shell Shock," another label for combat exhaustion. Proximity, treatment as far forward as possible, was once again discovered to be vital to effective treatment. 50% of combat stress casualties were returned to combat. Lack of sleep, or fatigue, was again one of the biggest factors in determining who became a combat stress casualty.

During World War II, primarily at the start of the war, we managed to forget everything we learned during World War I. "Combat neurosis" was a new term developed, again talking about combat stress. Treatment did not occur near the front lines, and initially very few soldiers were returned to duty. Later on we relearned the lessons of World War I, proximity was reestablished as vital to treatment of combat stress, and 70% of soldiers

were returned to combat within 72 hours. The term battle fatigue was used to replace the term combat neurosis.

During the Korean Conflict United States troops were initially retreating down the peninsula toward Japan. There were extremely few combat stress casualties. Later, during the assault back up the peninsula and into North Korea, again there were extremely few combat stress casualties. During the static defense at the Pusan Perimeter combat stress casualties were extremely high. All divisions had a psychiatrist assigned, but too many soldiers were evacuated to Japan. When a treatment center was established in Korea (proximity) 80% were returned to duty.

Lack of sleep has been established as the biggest factor in determining who will suffer from combat stress. Any person who is deprived of sleep long enough will begin to hallucinate. Many soldiers going through Ranger School hallucinate during training, shooting at trees that look like people or at aggressors that are not there. Many American Indian tribes, as part of their transition from childhood to adulthood, would send Indian warriors out into the forest for two or three days without food or sleep to have a vision. These "visions" were hallucinations brought on by lack of sleep. These people would also hallucinate in terms of their culture, i.e. Seminole Indians living in Florida would not hallucinate about igloos and snowballs; Eskimos would not hallucinate about alligators and swamps. American combat soldiers who have not had adequate sleep would be expected to think in terms of enemy soldiers, or death and destruction, their own. Other components of combat stress would be fear, lack of food, and high casualty rates among units.

During the Arab-Israeli War of 1973, 50% of casualties were combat stress casualties. It was principally a high technology tank-air battle with several enemy contacts each day with extremely high casualty rates on both sides. Israeli combat exhaustion casualties were physically unharmed and were suffering from a transient battle reaction, but they were unable to continue to perform their mission. Where proximity was established in treatment, many were returned to duty. This is the kind of war we can expect in Europe between Warsaw Pact and NATO troops.

Soviet doctrine calls for a massed attack on a narrow front with the intention of penetrating deep into the rear, turning previously "safe" areas into battlegrounds, and getting involved in guerilla warfare behind the front lines. Chemical warfare is expected to be used extensively.

II

You have heard an introduction to combat stress. The next area that we will cover will deal with the causes and differential diagnosis of combat stress. The final lecture will cover the treatment of combat stress. First, then, what is combat stress? Combat stress is a result of exposure to battle conditions, just as injury and physical disease are results of battle conditions. The two most important ingredients of combat stress are physical fatigue and mental stress.

That combat is physically fatiguing is evident. Mental stress in

combat results from the need to be alert, evaluate situations, and make decisions in little time. Mental stress is especially caused by extreme, repeated, and continued threats to personal safety. When combined with extreme physical fatigue, combat stress can occur in any normal soldier. When combat stress reaction occurs, it tends to be overwhelming and renders the soldier temporarily ineffective.

Combat stress reaction presents with a wide variety of behavioral, mental and physical symptoms. Physical symptoms include rapid heart beat (tachycardia), palpitations (feeling your heart beat in your chest), muscular tension, breathlessness, "freezing" (temporary inability to move), frequent urination, inability to control bladder or bowels, perspiration and cold sweats, feeling too hot, too cold or both alternately, shaking and tremulousness, feeling faint, nausea, vomiting, insomnia and feeling too tired and weak to move.

Mild cases of combat stress are found among those who verbalize fears with obvious signs (trembling or tears), display physical exhaustion, or complain of physical symptoms. They may be irritable, startle easily, have insomnia, difficulty making decisions and may stare a great deal. These are the cases that you will see the most. These cases are easily treated with food and sleep even near the front lines.

Severe combat stress is marked by either extremely excitable and aggressive behavior, or apathetic and depressed behavior. For example, a soldier may become extremely disorganized, throw down his weapon, and begin running around in the open without cover while under fire by the enemy. Soldiers may develop amnesia, forget where they are and why they are there, and not be aware of what they are doing. Soldiers may also develop hysterical blindness or inability to move. Combat stress, then, is a syndrome of mental, behavioral and physical symptoms which can present in a wide variety of ways and degrees of severity.

How likely are you to see combat stress in the next war? Unfortunately it will be extremely common. The experience in World War II and Korea was of a ratio of combat stress reaction to wounded in action of one to three (i.e., 25% of casualties).

Several factors suggest that in a confrontation with the Soviets in Europe the ratio will approach 1:1 or combat stress may even exceed wounded in action.

The two most important variables in combat stress reaction are the duration and intensity of battle. Intensity may be measured by the number of battle engagements per day. In World War II and the Korean conflict two types of combat stress casualties were seen: 1) combat stress reaction, and 2) combat fatigue. Combat stress reaction occurs in the first few hours to days of a high intensity war. Combat fatigue occurs after weeks or months of exposure to moderate intensity war.

There are two peaks of psychiatric casualties in war corresponding to the above syndromes.

peak combat stress reaction

increased numbers
of combat fatigue

peak effectiveness in
battle at one month

one day

one week

one month

three months

In a modern war we will see mostly combat stress reactions.

In World War II front line units averaged three firefights per day. In a modern European scenario there are likely to be at least twelve engagements per day; and the intensity of each engagement will be qualitatively and quantitatively more stressful due to modern increases in firepower.

In fact, Soviet strategy is calculated to maximize our combat stress reaction casualties.

Given that we can expect a large number of combat stress casualties, what should we do about it? One of the things we are doing in the First Cavalry Division is conducting this seminar. We have determined, in consultation with the division surgeon, that treatment of combat stress casualties will have to be performed by medics in event of a war in Europe.

As medics you will be faced with the task of identifying combat stress reactions. To do this you must be able to separate combat stress from other similar syndromes you will see on the battlefield. In most cases it will be easy to accurately triage patients on the basis of history and physical examination.

The following is a differential diagnosis of combat stress reactions. This material will be covered in more detail in the lecture.

Differential diagnosis of combat stress:

1) Substance abuse: (amphetamine (speed), opiate (heroin), marijuana, PCP (angel dust), LSD, barbituates, other downers, alcohol).

History: The main thing here is history. Ask the patient if he has used anything to get "high" or to help himself keep awake. Also, inquire about visual hallucinations.

PE: Physical may be of some help. Amphetamine users may have rapid pulse, may be grinding their teeth, but pupils will be normal.

Opiate users may have pinpoint pupils.

Look for needle tracks if you suspect IV opiate or amphetamine use.

PCP users may have horizontal or vertical nystagmus.

Alcohol: Heavy drinkers may go into withdrawal (including DTs) 24-72 hours after their last drink. Look for tremor, increased pulse and blood pressure, sweating, possible disorientation, auditory, visual, or tactile hallucinations. May have withdrawal seizures.

2) Atropine: Soldiers will be exposed to atropine for two reasons: 1) used it to get "high" or 2) Soldier thought he was exposed to nerve gas and started treatment with atropine.

History: Ask soldier if he used atropine.

PE: Check soldiers atropine kit to see if it has been used. Look for rapid heart beat, dry skin and mucous membranes, possible disorientation, dilated pupils that react poorly or not at all to light.

3) Mild (subclinical) Nerve Gas Exposure:

History: Was soldier exposed to gas? Have others from his unit been exposed to gas? How soon after exposure did he develop symptoms? Symptoms always develop within 5 minutes of exposure. If his developed later, exposure to nerve gas is doubtful. Symptoms may include excessive sweating, nausea, excessive salivation, excessive respiratory secretions, vomiting, urination, defecation.

PE: Signs of the above, possible bradycardia (slow pulse), should reverse rapidly with atropine.

4) Environmental:

1) Heat Stroke; heat exhaustion

History: Prolonged period in MOPP gear or exposure to high heat.

PE: Increased body temperature, collapse, in exhaustion, cool moist skin; in heat stroke, hot dry skin, sweating has stopped.

2) Hypothermia

History: Prolonged exposure to severe cold

PE: Prolonged shivering, decreased body temperature.

5) Functional Psychosis: (schizophrenia, etc.)

History: May have history of strange behavior for days or weeks prior to becoming a casualty in the field. Look for bizarre ideas, paranoid delusions, auditory hallucinations.

PE: No evidence of drug induced psychosis.

6) Malingering (shamming)

History: History not convincing or inconsistent behavior

PE: No physical signs, poor eye contact

III

In combat, soldiers experience overwhelming stress reactions which may result from physical exhaustion, constant alertness, the trauma of seeing fellow soldiers wounded or killed, the fear of being killed or maimed, and the fear of killing other persons. Reactions to combat stress are generally temporary and do not require a soldier to be removed from combat. However, if a soldier cannot function effectively, you as a health professional will need to provide appropriate initial treatment or psychological first aid.

There is nothing that will make troops immune to combat stress but various measures can make soldiers more resistant to combat stress. Some of these measures must be taken by command, but it is your job as health professionals to advise commanders as to the necessity for these measures. Some of these measures you must see to on your own.

Prevention of combat stress has two phases, primary and secondary. Primary preventive measures are taken before the battle and include: 1) assuming that every opportunity is taken to develop in each soldier confidence in self, equipment, unit, training, and leadership, 2) providing sleep/rest, especially during continuous operations, whenever possible, 3) keeping on top of background sources of stress (i.e. family concerns, economic problems, personal problems), 4) pointing out that the enemy also faces stressful conditions, 5) providing a flow of accurate information whenever possible to minimize stress due to uncertainty, 6) helping each soldier understand his role and contribution, 7) recognize fear is normal, 8) stressing importance of over training and 9) increasing high morale and unit cohesiveness whenever possible.

With so many measures to be taken before the battle there is one measure that can not be taken; that is prediction of who will become a stress casualty, as everyone is at risk.

Secondary preventive measures are those measures that can be taken on the battlefield during or after the battle. Many of the secondary preventive measures coincide with primary, with the most important being sleep. Studies have shown that without a minimum of sleep (3 hours) soldiers will become ineffective in days; this includes commanders, soldiers, and even you.

Our present treatment principles have evolved from trial and error during our experience in World War I and World War II, the Korean War and in Vietnam. Most of these treatment principles were first learned in World War I but were somehow "forgotten" by the beginning of the Second World War and they have now been "relearned." These principles of treatment are represented by the acronym: IMPRESS.

- I Immediacy
- M Maintain Military Milieu
- P Proximity
- R Rest and Replenishment
- E Expectancy
- S Short and Simple
- S Supervised

Immediacy: The patient must be treated as soon as possible after his breakdown as a crisis intervention. Delays in treatment prolong and exacerbate combat exhaustion.

Maintain Military Milieu: Uniforms, rank structure and duty must be maintained in order to allow the soldier to continue to identify himself as a soldier and not as a patient.

Proximity: Soldiers should be treated as close to the front as possible; at the Battalion Aid Station or field hospital.

Rest and Replenishment: Constitutes the main therapy. The soldier must be able to get some sleep even if it requires a dose of sedative. It is also important that they get food and drink (a hot meal if possible).

Expectation: The soldier must have the expectation that he will shortly return to his unit. Medical personnel must be perceived as firm in their decision to return him to duty. The soldier must also perceive that he is expected to be "well" quickly so that he will have that expectation himself.

Short and Simple: Treatment usually lasts from 24-72 hours. Detailed psychological histories are not required and are not desired as they tend to reinforce the soldier's idea that there is something seriously wrong with him. The only appropriate psychotherapy involves letting someone talk and "get it off his chest." He does not need to unburden himself to a doctor and it is, in fact, preferred that he talk to an enlisted counselor to minimize his identification as a patient.

Supervised: It is important for someone experienced, such as the division psychiatrist, to closely monitor the evacuation channels to insure that soldiers with combat stress are not inappropriately evacuated.

These treatment principles will guide you in your helping most of the combat stress casualties, but sometimes soldiers' problems are too complex for the resources you have in the field. It is recommended you evacuate soldiers that cannot function on the job who compromise the safety of others or self, or who may require physical restraints. It is equally important that you return all functional soldiers to duty as soon as possible. We as health professionals must remember that useful work after severe stress is beneficial and experience has demonstrated that failure to return a good soldier to duty can lead to a permanent disability and a permanent loss to the unit.

CASE I

Scenario: Patient was found in full CBR [gear laying under a tree. He exhibits dry skin, parched lips, dry mouth, blanched color. He exhibits signs of amnesia, active hallucinations, delirium, dilated pupils that do not react to light, could not stand up without help and was noticeably weak. He was dazed as to what happened. A noticeable skin rash was forming on the patient's body. He continually babbled about the brown gas seeping into his mask. He stated he had to save himself. No atropine injectors could be found on his person. No CBR agents had been used in his area of operations.

Unit Management:

Recognize atropine psychosis. Begin physostigmine IV solution of 1 mg., increase to 2 mg. as necessary. Treat on the unit, search and restrain. Expected return to duty is 12-36 hours.

CASE II

The patient is brought to the unit medic by his platoon sergeant. The soldier reports anxiety attacks recurring more frequently and of increasing intensity with increasing anticipatory anxiety. He shows an extreme startle response, anxious voice, is querulous, has sharp chest pains, increased sweating, hyperventilating, numbness and a "pins and needles" feeling around his face and hands. During a recent engagement he was frozen in the field - crouched in his fox hole, and could not take appropriate action. The soldier was trembling and could not move when ordered to by the commander.

Case Management

Diagnosis: Combat Stress Reaction

Treatment in the Field:

1. Initially, have the soldier breathe into a paper bag.
2. Evacuate to the Battalion Aid Station - he will be provided food, rest, and expectancy of returning to duty. He may or may not be returned to combat duty, or may be reassigned.

CASE III

Scenario: Patient is brought in ambulatory to unit by an NCO who states that the patient has been withdrawn for the last 24 hours, staring into space, speaking repetitiously and unable to carry out his duties or sleep. One of his friends had been killed in combat a few days earlier, but patient himself was uninjured. Patient demonstrates withdrawn behavior, flat affect, and slow speech and movement without suicidal or psychotic ideation.

Unit Management:

Recognize combat stress-related disorder (in this case, a grief reaction). Keep and treat the patient in the Bde Support area with sleep (sedate if necessary), food and liquid, shower and shave, stress normalcy not illness, and do not evacuate to rear, and return to full duty.

CASE IV

Scenario: Patient is brought in to unit ambulatory by another troop; he has been talking to himself, yelling incoherently. His buddy states that he has been pacing and acting strange for the last 24 hours.

Vital Signs - T 98.6; HR 100; RR 20; BP 120/70. Pupils widely dilated but react to light. Sweating, moderate, no dry mouth. Physical exam is normal; but patient is disoriented to place and time; he talks rapidly using words that make little sense; the medical officer is unable to communicate with this agitated patient. (Acts like hallucinating.)

Unit Management:

Evacuation - Priority.

Expected Treatment - Recognize that this is an acutely psychotic patient who will require more intensive treatment than simple battle fatigue although it could be a severe form of it. He must be carefully searched, restrained and sedated.

Was the Differential Diagnosis Considered:

- 1) Atropine poisoning unlikely as pupils react to light.
- 2) Amphetamine or other drug psychosis possible.

CASE V

The patient is presented to the unit medic by the platoon sergeant. Enlisted member cannot remember what has happened during the last twenty-four hours. He remembers his unit and the people in it, but reports concern over what behavior he may have exhibited. Did he run? Why can't he remember?

Inquiries about squad members find some have died.

Case Management

1. Ask other platoon members if patient lost consciousness, i.e. was struck in the head (functional vs. organic amnesia).
2. Perform a physical exam (in this case, results are negative).
3. Inquire about enlisted member's performance during engagement - unremarkable.
4. Inquiries find onset of amnesia occurred just after strafing by aircraft. Enlisted member saw his buddies, including his best friend, killed.

Treatment in the Field:

1. Reassurance. Stress normalcy, not illness.
2. Recapitulation. Tell patient what happened to him.
3. Provide rest.
4. Expectancy. Enlisted member's memory will probably return.
5. Do not evacuate.
6. Return to duty.

CASE VI

A platoon sergeant reports to the unit medic, stating he believes he has been exposed to a nerve agent. A soldier escorting the platoon sergeant states shells landing nearby could have contained nerve agent. There have been no confirmed cases of chemical casualties. The sergeant could possibly have been exposed to a nerve agent thirty minutes ago while out on a patrol.

Physical exam reveals tachycardia, anxiety and sweating; however, pinpoint pupils, increased salivation in the mouth, swallowing, lachrymation (tearing of the eyes) are all absent.

Case Management

Diagnosis: Combat Stress Reaction

Treatment in the Field:

1. Tell the sergeant nerve agents are effective in five minutes. He has no signs of exposure and is now in recovery if there was any exposure.
2. Provide reassurance.
3. Expectancy - he will be returned to duty.
4. Inform command - there may be other self-reports of exposure if soldiers believe there has been a chemical attack.
5. Do not evacuate.

CASE VII

The patient has been sent by the commander for evacuation. Enlisted member reports seeing enemy movement and opened fire with an automatic weapon, thus compromising the position of the machine gun. The individual cannot explain his behavior, and still maintains he saw movement. The patient is moving normally, but responds slowly to questions. He nods off between questions and needs questions repeated. He denies a history of exposure to toxic substances. He reports one and a half hours sleep in the last three days, none in the past 24 hours. The physical exam is unremarkable, except the soldier is drowsy and nods off.

Case Management

Diagnosis: Combat Stress Reaction, sleep deprivation

Treatment in the Field:

1. Sleep for the soldier.
2. Advise the commander that other troops may start compromising positions if sleep discipline is not enforced.
3. Ask the commander how much sleep he has had.
4. Do not evacuate.

CASE VIII

A soldier is brought to the unit medic by a companion. He was found in full NBC gear under a tree. He is confused and disoriented, talks in a confused manner, appears to respond to visual hallucinations, does not remember where he is or how he got there. The physical exam established he has a dry skin, mouth and lips, dilated pupils that do not react to light, and a rapid pulse. Atropine ampules missing.

Case Management

Diagnosis: Atropine psychosis.

Treatment in the Field:

1. Evacuate to the Battalion Aid Station.
2. Treat with physostigmine.

Disposition:

Battalion Aid Station treatment with physostigmine. Return to field in 12 to 36 hours.

CASE IX

Scenario:

Servicemember was found stumbling around encampment without his weapon or any protective gear. The compound had just undergone hostile fire all night. The patient exhibits flattened mood, claims to be unable to see clearly or have any use of his right side (the patient is right-handed). There are no apparent physical injuries on the patient's body nor have there been any CBR agents used against the encampment.

T 98.8, HR 70, RR 18, BP 120/70.

Unit Management:

Recognize probable conversion reaction due to battle stress. Reassure the patient that this is not an abnormal reaction, that his side is not injured and he will recover fully after a few hours rest. Keep on the unit with expectation of return to full duty in 12-36 hours.

CASE X

Patient reports to the unit medic with insomnia, tachycardia, startle response, 1000 yard stare, irritability and diarrhea, and psychomotor retardation.

The unit has been in almost continuous engagement for the last forty-eight hours and has had to move frequently. The commander provided opportunities for sleep, but the soldier was unable to sleep when his turn came.

Case Management

Diagnosis: Combat Stress Reaction

Treatment in the Field:

1. Reassurance - this is a common response to exposure to combat.
2. Provide food, sleep.
3. Expectancy - the soldier will be returned to duty.
4. Do not evacuate.

COMBAT PSYCHIATRY IN THE 4TH INFANTRY DIVISION (MECHANIZED)

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Until soldiers start getting hit in battle and real blood begins to flow, line medics tend to be perceived somewhere between excess baggage and free labor. They spend many more hours maintaining their track than maintaining their resuscitation skills. Preparing the company latrine is a "medical mission."

Until replacements start getting scarce, division mental health personnel enjoy a similar status. The subject of combat stress is inevitably greeted by a few snickers and lame jokes. Sometimes tactfully and sometimes with tongue-in-cheek, I am asked, "What do we need with a psychiatrist anyway?" General George Patton is remembered for the two combat stress casualties he slapped, not for the thousands he prevented by exercising sound and successful leadership, emphasizing the importance of cohesion and esprit-de-corps, and keeping his ear tuned to morale in the tanks and trenches.

The prominence of this topic in the agenda of CORTRAIN is certainly heartening if it represents a growing concern at this level for the psychological impact of future combat. I have heard it passed off however, as mere evidence of the Corps Commander's eccentricity. Hoping that the former is the case, I want to use LTC Xenakis' introduction to the Army Science Board Briefing, copies of which were circulated during December and January, as a touchstone for this presentation on the 4th ID Combat Psychiatry Program developed here over the past 18 months.

Dr. Xenakis attributes combat stress disorders to a set of factors which he divides into general and specific stress phenomena. The general factors he lists are: level of physical fitness, status of protection against common infections, nutrition, strength of discipline, quality of leadership, and degree of unit cohesion. I would add to that list reliance on chemical support for stress management including use of caffeine, tobacco, alcohol, and other drugs; the stability and effectiveness of the unit's support system for families of soldiers; and the amount of emphasis placed in training on the anticipation, recognition, and management of the psychological impact of combat on individuals and organizations. Specific factors listed were fatigue, sensory overload, and reaction to loss of unit cohesion.

Israeli authors Gal and Noy arrived at parallel conclusions in their studies of Israeli Defense Force heroes and combat stress casualties respectively. Four factors, their relative presence or absence forming a continuum, differentiate between stress casualties on the one end and heroes on the other. Stress casualties came from units with less competent leadership, lower cohesion, and poor morale. They also tended to have higher personal turbulence in their background. Heroes came from units with good leadership, high cohesion, and good morale. They had less personal turbulence in their backgrounds. If one were to use this data as

a basis for decreasing the number of combat stress casualties, which is my job, or increasing the number of heroes, which is your job, where would we direct our respective efforts? When we realize that the Israeli definition of personal turbulence included marriages, new babies, and geographical relocations as well as more adverse changes, this factor becomes typical of the American soldier. It seemed to us that any influence we might have, would best be brought to bear on the general phenomena of leadership, cohesion, and morale. The Combat Psychiatry Program has grown out of that conclusion.

The Division Mental Health Team is currently engaged in four preventive activities, in addition to the operation of a standard mental health clinic.

Battle Stress Training was our first effort in this new direction. A training effort was selected for a variety of reasons. It required minimal investment on our part: a review of the literature, development of a lesson outline, and advertising. It was easy to market to our target audience, officers and NCOs, because of their constant need for material to fill blocks in Officer Professionalism and NCO Professionalism Development Seminars. This approach provided economical access to a large group of influential people who, due to their positions of leadership at the ground floor of the organization, could apply their increased awareness and knowledge of combat stress to the greatest number of soldiers. Our secondary target was people in positions of special influence, such as medical personnel and chaplains. The module is also incorporated in the LEAD course for new company commanders.

Battle Stress Training is a two hour didactic module intended to be an introductory overview. It covers a lot of material fast. It projects the likely psychological environment of the modern battlefield, reviews sources of stress, general and specific. Organizational factors like cohesion, rotation policies, and mobilization; battle factors like intensity of fire, NBC, jet lag, and climate; and personal factors like inexperience, substance abuse, fatigue, sleep deprivation, and reactions to death and wounding are all explored briefly. Some techniques for preventing and managing these sources of battle stress are also briefly reviewed. The nature of combat stress casualties and their management at unit or origin and rear areas are covered. Past and potential numbers of combat stress casualties are presented.

This training module has been well received by approximately 550 officers, 300 NCOs and 200 enlisted personnel during the past 18 months. Currently under development is an expanded training program for line medics and clearing station personnel.

A quick and reliable method of measuring unit psychological readiness for combat could be a valuable aid to commanders. The Combat Stress Survey (handout) was developed after the fashion of the Israeli Morale Survey. It consists of a variable set of demographic items and a standard set of twenty survey items which are used currently in two forms, one for service support units and the other for combat and combat support units. The items are very similar but the latter is focussed on the deployed situation, either downrange or elsewhere.

A study of eight companies in the 1st Brigade Task Force was integrated into their preparation for and redeployment from the National Training Center. It focused on changes associated with the training exercises. A similar study of two maneuver battalions in the 3rd Brigade Task Force is underway in conjunction with its recent NTC deployment. A study of the DISCOM in garrison is also nearing completion.

The Combat Stress Survey requires less than 30 minutes of troop time to administer. Feedback to the chain of command is intended to give an objective measurement of selected psychological readiness factors, to provide a profile of certain broad parameters, and to provide some comparison with external norms. Small unit commanders are asked to review the survey items and pick those items which they consider relevant to their goals as a leader and rank order them as they think they currently stand in the unit. Finally, they are asked to estimate the percentage of their soldiers who they think would respond positively to those selected items and state their goal percentage.

For example, a commander might think that confidence in NCOs and company officers (items 88 and 89) are very high while confidence in equipment is very low (item 93). He also might predict that these factors were unaffected by a specific training experience. His survey results however, show that prior to the training neither item 88 or 89 were among his top five; in fact, item 88 was in his bottom five. Item 89 had risen to enter his top five by the end of training, confirming his post training prediction, while item 88 remained stable as predicted but in his bottom rather than top five. He would also learn that while item 93 was not low initially, his post training prediction was valid.

This commander chose item 100 on unit pride as very important to him as a leader. He estimated that 60% of his soldiers would answer positively to that item. His survey results show that 46% answered positively while 32% responded negatively. If this commander's goal was 90% on this item, then he might need to a) reevaluate his "feel" for unit pride in that he may be overestimating, and b) focus more effort in this area to reach his stated goal. This finding, considered with those above would indicate that building a stronger NCO cadre and addressing equipment deficiencies are avenues toward improving the pride soldiers feel in that unit.

To provide comparisons, means for his unit can be compared to the means for some larger group. The platoon's mean can be compared to the company's mean, company's, to the battalion's or MSU's mean; or a single armor company can be compared to the mean for all armor companies. Each unit can also be compared to the lowest and highest unit on each item. So, the armor company commander can see where he falls between the highest and lowest company in his battalion, MSU or among all armor companies surveyed.

Finally, items are clustered to provide a multifaceted measurement of a broader parameter. The four parameters we currently look at are: 1) sense of cohesion in teams, 2) confidence in leaders, 3) confidence in personal readiness, and 4) perception of overall unit effectiveness. The example shown here shows how a single company changed between pre and post surveys in comparison with how the MSU to which it belongs changed over the same period. Looking at confidence in leaders, while this parameter declined for the MSU as a whole, for the company in question confidence in leaders

improved. Note though that confidence in leaders in that company started well below the MSU average at the time of the presurvey. The Combat Stress Support is scored and analyzed by computer in order to provide prompt feedback in a standard format. Unfortunately, obtaining adequate ADP support has proven much more difficult than we expected. Our goal is to offer on-request assessment on at least a twice a year basis with prompt feedback to all division units, but that goal depends on resolution of current difficulties in getting our data processed and arranged in a usable format. The graphics shown here are mock-ups.

It is clear that reliance on computer analysis of large quantities of data will be impractical on the battlefield. Yet the necessity to stem the excessive loss of combat stress casualties will be critical. Battlefield interviewing is a technique developed to accomplish the same objective as the Combat Stress Survey but in a battlefield environment. It is a consultative technique with which Mental Health Section personnel can react to high battle stress casualty rates in combat. During two successive National Training Center rotations enlisted Behavioral Science Specialists (MOS 91G) have been trained to conduct ten-minute structured interviews on the battlefield during lulls in fighting. Rough geographic sampling (two interviews per track, one per foxhole, etc.) or group interviews are used to form a platoon or company profile of current levels of combat stress and the status of stress prevention and management efforts. Not the least aspect of this training has been to provide mental health personnel with a working knowledge of the mechanics of combat, the intrinsic sources of information and transportation found there, and the skills needed to provide timely and reliable information and consultation to leaders.

This technique has provided very interesting insights into the National Training Center experience. As Dr. Xenakis notes elsewhere in the remarks quoted earlier, "combat training at the National Training Center is designed to replicate the intense pressures of the modern battlefield and acclimate combat personnel to its enormous physical and mental demands." This is exactly what soldiers deploying to National Training Center for the first time are led to expect but seldom what they find. We found boredom rather than fatigue and sleep deprivation to be the major stress of National Training Center. As in LTC Xenakis' Company Team Test, leaders were found to be severely stressed and often sleep deprived, but the common soldier, be he tanker or infantryman, was seldom found to be heavily fatigued and usually had more than adequate sleep, often reporting 8-12 hours sleep per 24 hours during force-on-force exercises. The morale letdown for soldiers expecting to be stressed and challenged was significant.

An interesting interaction of morale factors was observed to occur. As reported by other sleep researchers, several examples were seen of company grade officers and battalion "S" staff officers in relatively severe states of sleep deprivation and fatigue in contravention of their own carefully planned sleep rotation plans. A common tendency to personalize the "emphasis on the negative" style of critique employed by observer-controllers, coupled with their own high stress levels, sleep deprivation, fatigue, and frequent trouncings by the Opposition Forces, combined to devastate the morale of company level leaders. Due to the same factors they were hardly able to disguise their own psychological states when interacting with troops or else they dealt with their state by withdrawing from troop contact. Both reactions had further negative impact on troop

morale. Seeing the leadership so highly stressed in comparison to their own unstressed state only served to heighten the sense of non-involvement in the common soldier. He became resentful and apathetic and tended to focus more critically on the occasional delays in mail call or hot meals.

A further example observed concerned a well intended ban on personal reading material and games in one brigade. The expectation given the troops was that they would be too busy anyway but that what few lulls might occur would be absorbed by additional training. This did not happen. Responsibility for additional training fell to mid-level and lower NCOs who were unprepared to deal with the large quantities of empty time. They too had believed little such time would be available. The result again was boredom and lowered morale. Interestingly, many NCOs perceived their giving the troops lots of free time as a favor, assuming that soldiers appreciated having nothing to do. This was not in fact the case. Free time in the middle of the desert does not have the same reward value as free time back in the garrison. An air drop of playing cards or a mobile library would have provided a much needed morale boost for these soldiers.

These are examples of how a relatively few hours in a company can yield a rough and ready assessment of morale and morale problems. One can easily see, however, that providing this information to a harried, sleepy commander may not result in corrective action. Again, such information tends to get low priority until unnecessary losses or inadequate performance due to morale factors become a reality.

The development of Brigade Consultation Teams is a transition step toward the reconfiguration of medical assets in Division 86. The ultimate goal is to have small independent mental health teams which are intimately familiar with, and to, the brigades to which they are assigned. The first phase of this transition has been to reorganize our clinic intake process along brigade lines so that the Teams see most of the patients from their brigades, both active duty and family members. This phase also requires the beginning of a data base on each unit in the brigade. This has been underway since 1 January 1984. The next phase will involve an intensive orientation program which will get the Brigade Consultation Team members into the living and work areas both in the garrison and in the field, of the units they serve. This will accomplish the two-way familiarity and confidence necessary to begin the third and final phase: ongoing consultation to leaders on issues related to psychological readiness, morale, cohesion, and confidence.

This concludes my overview of the 4th Infantry Division Combat Psychiatry Program. Resources allowing, we feel we can add components to this basic program to meet specific needs identified by the division. Some of the work of LTC Xenakis and others is very appealing and would complement our more general approach.

Conclusions and Recommendations

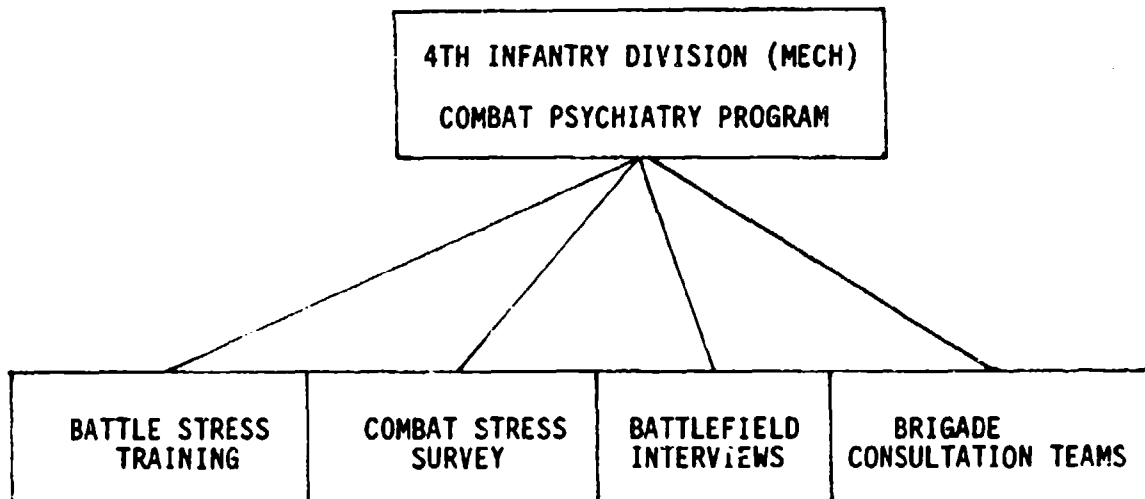
In conclusion, the 4th Division Mental Health Section has successfully stepped out of the clinic and back into the division. Strides have been made toward reclaiming the mission for which these teams were originally deployed in 1943. For the most part, these efforts have been welcomed enthusiastically at company, battalion and brigade levels once practical usefulness was demonstrated.

Army-wide however, I consider current TOE psychiatric assets unprepared and inadequate to handle even the most conservative estimates of combat stress casualties, not to mention the inadequacy of the medical TOE to handle physical casualties in the numbers generated during recent wars in the Middle East and replicated in mock battles at the National Training Center. Psychiatric unpreparedness stems from a variety of factors. On our side, we have become clinic and hospital bound, too comfortable in our white-coated environment to venture out into your camouflaged one. On your side, the skepticism and occasional outright unwelcome that greet us when we do venture out inhibits many of my more timid colleagues. An example readily at hand is the OC at Fort Irwin earlier this month who stated decisively to the assembled officers of the 108th Infantry that a psychiatrist had no business at the NTC. Later, in my presence, he declined to state his reasons.

Another factor is that while status of personnel and equipment maintenance, training, and any number of other factors are aggressively addressed as readiness variables; morale, confidence and cohesion receive much less attention. While the Israelis bill morale as their secret weapon, in our Army it sometimes seems so secret we forget to consider it. Morale tends not to be seen as a variable that responds to leadership in the same way that tank maintenance does. Because it's not seen as both variable and responsive, it is neglected.

My recommendation is that the Army reconsider the current function of Division Mental Health Sections and, in light of US combat experience, and the more recent experience of the Israelis, direct these resources to a renewal of the mission for which they were originally intended. Recognize however, that this will require a reevaluation of both the current TOE and the support required. Enlisted grade (i.e., experience) levels are a critical shortfall as, to a lesser extent is overall strength of the section. Adequate ADP support is critical to any kind of psychological readiness assessment like our Combat Stress Survey. Basic supply and clerical support are not provided by TOE and must be provided by supplementation.

I also recommend that we begin soon to evaluate policy and training as to its impact on psychological readiness and deliberately seek to maximize impact in the positive direction. Our observations so far have shown repeatedly that well intended and sometimes expensive actions end up producing a negative effort simply because morale was not taken into account in the planning and execution.



RESPONSE SCALE

- (1) Strongly Disagree
- (2) Somewhat Disagree
- (3) Undecided
- (4) Somewhat Agree
- (5) Strongly Agree

- 85. My individual training has been good in preparing me to perform my job.
- 86. My unit training has been good in preparing my unit to work together.
- 87. I am confident in the abilities of the enlisted people (E1 to E4) in my unit to perform their duties.
- 88. I am confident in the abilities of the NCOs (E5 and above) in my unit to effectively manage the people under them.
- 89. I am confident in the abilities of the Company grade Officers (LT and CPT) in my unit to lead me.
- 90. I am confident in the ability of the field grade officers (MAJ and above) over me to lead me.
- 91. I feel I can completely trust and depend upon the people I work with.
- 92. Most people in my unit are more trouble than they are worth.
- 93. My equipment functions well.
- 94. I can use my weapons effectively.
- 95. My leaders tell me what is going on and what to expect.
- 96. My leaders insure that I am properly fed, warm, and rested whenever possible.
- 97. The NCOs over me have much concern for my well-being.
- 98. The officers over me have much concern for my well-being.
- 99. My unit has good training on caring for and evacuating our own wounded.
- 100. I am proud of my unit.
- 101. My unit values what I do.
- 102. I choose to spend my free time with the people in my unit.
- 103. My family members are well prepared to take care of themselves when my unit deploys.
- 104. My chances are very good of staying alive if my unit went into combat against the Russians in Europe.

COMBAT STRESS SURVEY

COMPANY CHANGE BETWEEN SURVEYS

COMPANY	SURVEY #1		SURVEY #2	
	C0	ALL	C0	ALL
Top five	103	94	94	94
	94	103	89	103
	85	90	92	92
	90	92	103	95
	96	96	100	90
Bottom five	91	87	95	91
	88	93	88	88
	104	99	99	95
	95	104	102	104
	102	102	93	102

BATTLEFIELD INTERVIEW

The purpose of this interview is to help us measure certain aspects of your unit's readiness for combat. We are interested in how this exercise is affecting your readiness. You will not be personally identified in any way. Your responses to the interview will not be reported individually to anyone. We are only interested in the overall collective opinions of your unit. If you have strong reservations about answering any particular question, please say so. Obviously, your honest opinion is what we need and our work will be useless without it.

1. Since this exercise began, has your opinion of your company grade officers:

Increased? _____ Decreased? _____ Stayed the same? _____

2. Since this exercise began, has your opinion of your NCOs:

Increased? _____ Decreased? _____ Stayed the same? _____

3. Since this exercise began, has your opinion of the EM in your unit:

Increased? _____ Decreased? _____ Stayed the same? _____

4. Since this exercise began, has your confidence in your unit's ability to perform its combat mission:

Increased? _____ Decreased? _____ Stayed the same? _____

5. Since this exercise began, has your confidence in your weapons:

Increased? _____ Decreased? _____ Stayed the same? _____

6. Since this exercise began, have you fired your weapon:

Frequently? _____ Infrequently? _____ Not at all? _____

7. Since this exercise began, has your confidence in your other equipment:

Increased? _____ Decreased? _____ Stayed the same? _____

8. Since this exercise began, how would you rate the support (food, fuel, ammo, repairs) your unit has received:

Good? _____ Average? _____ Poor? _____

9. Since this exercise began, how would you rate the quality of information (battlefield objectives, plans, feedback) your unit has received:

Good? _____ Average? _____ Poor? _____

10. How many hours have you slept in the last three days? _____

11. Have your leaders been visible and shown a concern for your physical and mental state during this exercise: Which leaders (NCO/Officer):

Yes? _____ No? _____ ~~*****~~ NCO? _____ Officer? _____

12. Are your concerns for your family or personal matters back home keeping you from giving 100% here?

Yes? _____ No? _____ Partly? _____

13. The level and intensity of the National Training Center (NTC) exercise has met my expectations:

Agree? _____ Disagree? _____ Undecided? _____

14. How do you feel about facing the real Russians in combat at this point?

15. Remarks:

OBSERVATIONS FROM THE SINAI: BOREDOM---A

PEACEKEEPING IRRITANT



**UNITED STATES ARMY
MEDICAL RESEARCH UNIT**

A SUBUNIT OF THE WALTER REED ARMY INSTITUTE OF RESEARCH

**FORT BRAGG
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1984

OBSERVATIONS FROM THE SINAI: BOREDOM--A
PEACEKEEPING IRRITANT*

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The literature on military peacekeeping missions cites boredom as one of the major problems in this type of operation. There is little consensus on the nature of the problem, however. Thus Rikhye et al., in their analysis of the United Nations Force in Cyprus (UNFICYP), suggest that boredom will be most problematic for professional combat-oriented soldiers.¹ Janowitz, on the other hand, while recognizing that being organized as a peacetime

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force in being to fulfill constabulary functions will be more boring and threatening to combat readiness among ground combat units than among air crews or naval units, argues that the problem is less severe among elite combat units, such as airborne or ranger units.² Surveys conducted of the first American battalion to serve in the Sinai Multinational Force and Observers (MFO), an airborne infantry battalion, showed that prior to deployment, 13 percent of the soldiers expected it to be boring or like garrison duty, midway through the deployment 41 percent reported it to be so, and this latter figure held for the troops after their return.³

Segal et al., in addition to analyzing survey results, describe the events that led to the United States sending an infantry battalion and a logistical support unit to participate in the MFO, along with personnel from ten other nations. This article reports on observations and interviews taken by two social scientists who deployed with the infantry battalion.

Method

Two participant observers (the senior author and a staff sergeant), both assigned at the time to the Walter Reed Army Institute of Research, were invited to deploy with the first infantry battalion assigned to Sinai peacekeeping duty, and to remain with it during its six months in the southern sector of the Sinai Peninsula. Both observers had both previously deployed with this unit and were known to its officers and men. Their task was to collect data on the health and general well-being of troops performing peacekeeping duties under desert conditions.

During this six-month period, they were attached to three squads; one from each rifle company. They lived with the squads during the time they spent in desert observation posts. Each squad spent ten days in an observation post and then was transported by helicopter to another observation post for ten more days before returning to base camp for ten days. Most of the observation posts were in remote areas. Individual interviews were conducted continuously, and squad interviews were conducted upon return to base camp insofar as possible. In addition, the researchers were responsible for administering surveys on a variety of health and psychosocial issues.

Time spent with the soldiers prior to deployment convinced the observers that most of them were excited and had positive attitudes about this mission; a fact that was confirmed by survey data. Some soldiers who were nearing the end of their current enlistment had extended their tours of duty in order to deploy with their units.

Base Camp and Observation Posts

Field observation took place in both base camp and observation posts. A description of these contexts will assist the reader in understanding the issues raised

The base camp approximated a small garrison post. It had a post exchange, library, movie theater, club facilities, tennis courts, baseball field, basketball and handball courts, and a modern dining facility seating 350 people. Troops slept two to a room in modestly furnished mobile homes. Each room was equipped with individual wall lockers, and a desk with reading lamp and

chair. Each soldier had a bed with box springs and mattress, and each room was air-conditioned. Officers and noncommissioned officers had private rooms. Parties were encouraged when units returned to the base camp from the observation posts. On three different occasions during the six-month tour, live entertainment was brought in. Tours were available to Israel, Egypt, and Saint Catherine Monastery on the peninsula, where soldiers could visit and climb Mt. Sinai.

By contrast, most observation posts and checkpoints contained two huts. One was for billeting the squad. It was an open bay with bunk beds (doubled). The second hut contained the kitchen and the radio room. The kitchen was equipped with a refrigerator, freezer, electric stove, kitchen table with chairs, and running water. The refrigerator and freezer were usually well stocked with fruit and other foodstuffs. Both huts were air-conditioned. No other facilities existed on the observation posts. Commanders encouraged their troops to enroll in correspondence courses. When special events such as live entertainment were occurring at the base camp, provisions were made for as many squad members on the observation posts as could be spared to attend.

Daily Routine at Observation Posts

A typical day on the observation post began at approximately 3:30 a.m., when the men prepared for "stand-to." After "stand-to" they generally returned to their bunks until 6:00 a.m. The order of the remainder of the day's activities differed from squad to squad. Generally, physical training came next. Then

men attended to their personal hygiene. Breakfast consisted of either c-rations or a hot meal brought in by helicopter. The troops at that time received one hot meal a day: either breakfast or supper. They are now allowed to cook their own meals on the observation posts. Mail was also brought in by the helicopters.

After breakfast, men would be detailed to their various housekeeping chores. One detail might clean up the kitchen area, while others would be detailed to burn trash and human waste, and disinfect and maintain the portable latrines.

The two major tasks carried out around the clock were radio watch and guard mount. These tasks were detailed by duty roster. For most squads, routine chores would generally be completed by about 10:00 a.m. This was followed by training in soldiers' skills. After skills training, men were generally free until their shifts came up for radio watch or guard mount. During free time, activities varied. Those fortunate enough to be assigned to observation posts near a beach generally went swimming. A considerable amount of time was spent reading, sleeping, listening to music (if they owned a tape recorder), writing letters, rereading letters from home, or playing cards or other games. Just prior to sundown, the troops assembled again for "stand-to." The evening meal was followed by housekeeping chores and maintenance of the observation post. Then they were free to engage in their own activities until duty time. Each day was a carbon copy of the day before.

Leadership Concerns

Because of the uniqueness of this mission, the leadership

had a multitude of concerns, two of which were paramount. One was how to develop the kinds of cohesive units necessary to function independently on the observation posts and checkpoints over extended periods of time. This concern arose from the following facts:

- *The army was in the process of developing a new manning system in response to increased recognition of the impact of cohesion on performance;⁴

- *Analyses of the modern battlefield had produced a recognition that small units were likely to have to operate in relative isolation;⁵

- *Many soldiers, including some commissioned and noncommissioned officers, were assigned to the battalion just prior to deployment. There were also attached units, whose men had not served with the battalion before;

- *The pattern of life was much different from the garrison duty to which most of the men were accustomed. In garrison, men are together during normal duty hours, and then go their separate ways after the day's final formation. For many soldiers, even in this elite combat unit, knowledge of one another was little better than that which civilian workers have of their shift-mates.⁶ By contrast, the peacekeeping mission required soldiers to live and work together as squads 24 hours a day for six months. Their work was highly routinized, and they lived in very close quarters.

The second major leadership concern was boredom. This spoke to the uniqueness of peacekeeping duty. It presented a new and different challenge; that of performing a mission for which one

is not normally trained. One stands guard, but expects no fire fight. One builds bunkers, but does not anticipate their use. One learns rules of engagement that are more defensive than offensive, and in fact emphasize passivity rather than action.

The average soldier has no combat experience, and can only compare this duty with the combat training he has received during field training exercises and with life back at garrison. This was a real-world mission, not a training exercise, but peace-keeping is different: there are no enemies. The pace is much slower than that of most training exercises or of life in garrison. One observes, verifies, and reports. One sits and waits. One soldier stated: "Training for this deployment was more realistic than the mission."

In interviews with the officers and enlisted men in each of the units which have deployed to the Sinai, our observers have found that the dominant theme is "boredom." Our analysis of these interviews leads us to believe that leaders define boredom differently from their troops. Leaders see boredom as the absence of meaningful tasks. They are concerned that troops who are bored, "[with] not enough to do to fill up their time...will get into trouble," which in turn has the potential of reducing squad cohesiveness. Conversely, programs to build cohesiveness (and fill the troops' time) were seen by the leaders as mitigating against boredom. Troops, on the other hand, seem to use boredom as a metaphor which represents a myriad of frustrations. From the perspective of the troops, programs to build cohesion, while potentially valuable in pursuit of that goal, will not

necessarily alleviate boredom.

Attempts to Establish Cohesion

Once deployed to the Sinai, unit commanders sought to deal with the problems of developing small unit cohesion and reducing boredom by requiring full days of training at the squad level prior to taking up positions at the observation posts. Other efforts to establish cohesion were through athletic competitions at the squad level. Volleyball, basketball, track and field, and water sports were most popular. Most commanders felt that troops would be more likely to experience boredom on the observation posts than at base camp, because of the great difference in the availability of recreational activities.

Peacekeeping in the Sinai is a squad-oriented mission. Observation posts and checkpoints were occupied by squads. The squad leader was the compound commander. The squad was responsible for observing and reporting any infractions of the peace treaty, and was generally independent of any other elements in the company. Troops ate, trained, and slept as squads. The requirement to sleep as squads deserves special mention because of the contrast with garrison life. It was the first time many squad leaders were in 24 hour contact with their men and many squad members were in 24 hour contact with each other. They had an opportunity to observe strengths and weaknesses in each other to an extent never before possible. In later interviews, responses to questions concerning this issue revealed that they now felt they knew each other better than when they were at their home base. Midway through the tour, most squads interviewed

claimed to be "tight." Even members of squads that had experienced internal problems responded that they would rather remain with "this squad" than transfer.

If squads were not cohesive before, there was evidence that prior to assuming their mission on the observation posts they were becoming cohesive groups. Athletic competitions which had previously been arranged and supervised by the command were now springing up spontaneously as squads and sections challenged each other. Even the civilian workforce got into the act, as they challenged the senior NCOs to a game of volleyball. Men who once complained about being forced to participate or attend a squad athletic competition now voluntarily participated, or supported their team.

The competitive spirit extended to the mission itself. Once the squads began to occupy their positions on the observation posts and checkpoints, they began to take a proprietary interest in them, working together to make them as comfortable as possible and expressing the fear that succeeding squads would not keep them up to their standards.

An observer report on one of the squads during the first few weeks noted:

The squad on Observation Post #21 spent most of its time working on the observation post. Elaborate fighting positions were built. Walkways were built between the positions by moving rocks and clearing a path with rows of similar sized boulders outlining the edges of the walkways. A helicopter landing pad was built. Rocks and stones were cleared away so that a helicopter

could land without damaging its skids. A fireplace was built of stones. These improvements are basically functional and required a lot of time and energy. But the men in the squad continued to make improvements on the compound even after the squad leader was satisfied. In a two-acre flat spot near the observation post, the men built a large American flag by arranging rocks to represent stars and stripes. The "flag" was approximately 40 yards by 20 yards and could be seen clearly from the air. On an adjacent mountainside, they arranged rocks in the shape of a gigantic shoulder patch with the emblem of their unit. One team leader took two volunteers and with a piece of steel bar and a rock carved their unit designation onto the side of a sandstone mountain. These activities were primarily ideas of the lower enlisted men and they served to pass time. The predominant attitude within the squad on the observation post was one of sharing with fellow squad members; books, music, food and water were willingly shared among the men. When any member of a squad received a package of candy or cookies from home, it was opened and consumed as community property.

While efforts to produce cohesion seem to have been successful, these same efforts did not alleviate boredom.

Boredom as a Dominant Theme

References to boredom appeared in interviews during the first three weeks of training after arrival in the Sinai. The

requirements that troops remain with their squads on a 24-hour basis and that they remain on the compound resulted in complaints that they didn't have enough privacy, were "restricted" and "bored." The complaints were short-lived at that point as the date for deployment to the observation posts and checkpoints neared.

References to boredom surfaced again roughly midway through the deployment. Four types of boredom were mentioned by the troops. In order of the frequency with which they were mentioned, they were: (a)underutilization; (b)cultural deprivation; (c)lack of privacy; (d)isolation. Attempts to fill the troops' time obviously did not address this range of feelings of boredom.

Perceptions of Underutilization. The leaders had predicted that complaints of boredom would be most frequently heard from riflemen. In fact, riflemen, who spent most of their time in the observation posts, were more likely to complain about boredom than were headquarters company personnel. Most headquarters company personnel were performing duties similar to those performed in garrison. For example, the cooks, who were on duty for long hours, stated that this deployment presented a "major challenge" for them. Soldiers who worked in personnel, finance, supply, and transportation were essentially conducting business as usual. The medical personnel assigned to the dispensary were treating cases they would seldom see in garrison, and therefore saw this as a learning experience. Whatever complaints the headquarters company personnel had, they seldom made reference to

boredom. On the contrary, most saw their assignments in the Sinai as an extension of their stateside duties and as a challenge.

Troops in the observation posts saw life differently. They were riflemen, trained for maneuvers in combat, and were action oriented.⁷ However, there was peace in the Sinai. There wasn't really much to observe and report. There were few treaty violations. Most riflemen were not exposed to the few exciting moments that did occur. On some observation posts, one seldom saw another human being other than fellow squad members during the entire ten day tour. At others, one saw only a few Bedouins giving a friendly wave as they rode by on their camels. A few riflemen while being interviewed even expressed the desire to be sent to Lebanon, where "there was action." (It should be noted however that the few who expressed those sentiments were young 18 and 19 year olds who had never experienced combat. Such utterances were never heard from combat veterans.)

Riflemen were not the only soldiers to make references to boredom. Medics who were assigned to the observation posts also complained. Unlike those at the base camp, these medics were not getting as many patients as they expected. This was a very healthy battalion, and sick call in the observation posts was surprisingly low.⁸

Peacekeeping was uncharted ground, and there was nothing in the experience of these soldiers with which to compare this mission except the nature of their jobs back in the United States. The rifleman's frame of reference was his duty in garri-

son and in field training exercises. The medic's comparison was with the troops medical clinic. Their experience was much different here. If they were not underutilized in an absolute sense, they certainly felt so in a relative sense.

Cultural Deprivation. Soldiers whose complaints fell into this category often spoke of themselves as "restricted." Statements were heard such as "It's as boring as Hell here. We see nothing here but desert, desert, desert." A specialist fourth class noted:

It is boring. Not too much to do around here. You go to the beach a few times, but there are no women. The movies are a year and a half old, and we can't speak the language.

These soldiers spoke of the 24 hour a day shifts and the fact that "there was no place to go." When the troops were on the observation posts, they lived on small pieces of ground, generally surrounded by sand and mountains. If they were fortunate enough to be stationed near the Strait of Tiran, there would be a beach. However, it was devoid of tourists. There would be very few women. Even the base camp, with all of its activities, was surrounded by desert with the exception of Nama Bay, which by now was a ghost town compared with the days of Israeli occupation. Towns, as soldiers knew them in the western sense, did not exist. There were villages of Bedouin tribesmen, but only a handful of soldiers spoke any Arabic. For the soldiers who complained of boredom in this sense, the Sinai was a big empty prison with no place to escape.

Concern for Privacy. This complaint addressed the fact that troops perceived they had "no place to be alone." They further perceived that there was no time they could call their own. Their concerns spoke to the constricted nature of the observation posts. There were few places to which one could escape, to be out of sight of other squad members. A noncommissioned officer, speaking of his squad leaders, noted:

I think they [NCOs] need to get away from the lower enlisted men because...he is there all the time and has to cope with all of their problems. I know when I was a private I looked to the sergeant like they do. I took my problems to him and I never stopped to realize that he might have problems also. And he does have problems because he is only human. He has to have time to break away from everyone and to get off to himself. Here he cannot do it. First of all it is the confinement of the compound.

For some troops, portable stereo players with earphones, such as the Walkman, created a certain amount of privacy. These men were in "their own world," and usually not disturbed by their buddies. Their privacy was respected.

Isolation. The final sense in which troops used the term boredom is that of isolation. Troops who used the term in this sense spoke of communication problems with family and loved ones. One soldier, looking rather depressed, stated, "Boring, real boring...I don't like being over here and not hearing from my wife in two weeks."

In many interviews, it became apparent that soldiers were dealing primarily with their feelings of loss and distance from home. A major concern was the mail service. It was not unusual for letters to take from two to three weeks to arrive from the U.S. to the south camp in the Sinai. Even though attempts were made to explain the time lag, this knowledge was not consoling to troops expecting letters from home. Many soldiers became depressed over the mail situation and some broke into tears. Some reported fights or near fights involving men teasing others who had not received mail. To ask if one received a letter became a very delicate question indeed. Notwithstanding the fact that they had been away from home for only a relatively short period of time, men felt terribly isolated following each disappointing mail call. Mail was valued above all else. Life was further complicated by poor and expensive telephone communication.

While not often verbalized, another factor contributing to feelings of isolation was sensory deprivation. The unchanging weather, lack of noise, and limited activity seemed to create a feeling of timelessness. Concern with time and date and day of the week quickly diminished. Men would often casually ask each other what day it was, only to find that neither knew for sure. It was easy to lose track of how many days one had been on an observation post. Later in the mission, it was common to lose track of what week or month it was. The soldiers began to manifest low levels of the desert phenomenon known locally as "Creeping Beduoin Syndrome," characterized by disregard for time

and regression to the basic activities of eating and eliminating. Although this syndrome never appeared in an extreme form, some elements of confusion and disorientation regarding time were apparent.⁹

Boredom and the Allocation of Time

From the enlisted man's perspective, boredom can thus be seen as a metaphor symbolizing perceived loss of control of one's time and space. The soldier dichotomizes time as "Army time" and "My time." In garrison, "Army time" is that period in which the soldier accepts as his duty day the norm set by his unit. "My time" begins at the point he is released from duty by the first sergeant and continues until the next morning formation. He guards "My time" jealously and does not suffer infringements on that time gladly. To be sure, he is aware that technically he is on duty 24 hours a day, and that he is subject to be called back to the unit for alerts. This is acceptable to him. He does not expect to be called back after duty hours to perform routine chores, however.

The experiences which occur on "Army time", which are sometimes seen negatively by the soldier, can be tolerated as long as there is the expectation that "My time" is only hours away and he will have freedom of movement. The soldier can escape into his time and space.

In the Sinai, by contrast, the soldier perceives "Army time" as the 20 days that he spends at the observation posts and checkpoints. He perceives "My time" as the period that he spends back at base camp. However, while leaders provide a certain

amount of relaxation for the returning troops, they also demand that the soldiers continue to remain in training--in part to alleviate boredom. Thus, while at base camp, soldiers continue to train for skills qualifications tests (SQTs), the expert infantry badge (EIB), and to prepare for training evaluation exercises (ARTEPS). In addition, soldiers at base camp are subject to detail, just as they would be in garrison. While this activity might in fact alleviate feelings of underutilization, it does not address feelings of cultural deprivation, lack of privacy, or isolation from loved ones. Consequently, soldiers repeatedly stated that they preferred to be on the "observation posts, away from the brass," rather than to be in the (relatively) luxurious confines of base camp. On the observation posts they were able to predict their schedules, and thus distinguish "My time," meager though it might be, from "Army time." They perceived more control over their time and their space in the observation posts than at base camp.

CONCLUSIONS

Our analysis of the experiences of the first American infantry battalion to serve with the Sinai MFO leaves us with a series of observations, both about this particular peacekeeping mission, and more generally about military operations at the low end of the combat intensity spectrum. We regard peacekeeping operations as a form of low intensity conflict,¹⁰ recognizing that peacekeeping missions going on at the same time, in the same part of the world, can vary greatly in intensity. The experience of the U.S. Marines in a multinational peacekeeping force in

Beirut during the Sinai peacekeeping operation attests to that fact.

Most importantly, peacekeeping missions, and other low-intensity operations as well, we believe, are significantly different both from duty back at garrison and from Army combat doctrine, which is aimed at high intensity warfare: primarily air/land warfare in Europe pitting the United States and her NATO allies against the Soviet Union and the Warsaw Pact. Consequently, soldiers had no models which were adequate to predict their experiences. Even though leaders held classes and briefed the troops on what they could expect during their six months of duty, soldiers still carried with them the only models they had: those of their previous experiences in garrison and in "the field." If the peacekeeping experience failed to measure up to their yardstick, then those experiences were defined as boring.

The differences between the Sinai mission and other recent low-intensity operations characterized by occasional angry iron flying about the heads of American soldiers, e.g. Beirut and Granada, are obvious. These differences should not lead us to overlook the similarities. Combat infantrymen in low intensity conflicts are likely to feel underutilized between engagements. There is little for them to do. Soldiers in a low intensity conflict theater will, at least in the initial stages, experience cultural deprivation until recreational amenities are in place, and perhaps even thereafter. Lack of privacy and sense of isolation from loved ones are also likely to characterize the sentiments of soldiers in such a situation. Strange as it may seem, we anticipate that boredom among soldiers, as described here,

will be a general problem associated with low intensity conflict. If the Marines in Beirut have learned that peace is hell, it may also be that our soldiers in low intensity conflict will find that war is boring.

A second general observation concerns unit rotation. In garrison, and in combat under an individual rotation system, soldiers are assigned to a unit and are socialized into the environment by other soldiers in that unit. In the Sinai mission, an entire battalion is rotated and replaced by another battalion. While this clearly contributes to unit cohesion, it also means that the psychosocial history of the mission is lost. There is not a unit in place to receive and socialize the newly arrived peacekeeping soldier. Instead, each newly arriving unit must relearn the lessons of the past. Troops are bombarded with a series of surprises and unmet expectations. Some of these are positive and others are negative. These latter cause the greatest concern, because they are portents of problems to come with the Army's new manning system, which is oriented toward unit rather than individual rotation in the combat arms. We do not question the cohesion-building effects of such a system, but merely point out that the benefits are accompanied by costs.

With regard to the Sinai mission in particular, we find that commanders who believe that boredom is the result of inactivity characteristically respond by trying to assure that their soldiers have a full schedule of activities. However, the troops in the Sinai who complained of boredom were dealing with a complex set of experiences and emotions relating to perceived

deprivations and loss of control. Leaders who require activities solely to keep men busy may fail to meet the emotional needs of their troops, and are likely to continue to hear very busy soldiers complaining of boredom.

The problem can possibly be reduced by training that, rather than being "more realistic than the mission," prepares the soldier for the mission. This includes a greater understanding of the nature of peacekeeping operations: political as well as military. It should include training in a desert environment over an extended period of time. In addition to training for desert survival and the rules of engagement, the future peace soldiers should be exposed to a pace of training, and of living, that is much slower than the average training exercise. The leader is challenged to prepare for the possibility of a "Lebanon experience" and the much quieter Sinai experience.

During a deployment, leaders must continue to provide constructive activities and innovative training. The Sinai offers endless opportunities for unique experiences. Troops are eager for those experiences which are different and which present a challenge. Most leaders agree that boredom sets in about midway through a six-month tour. Activities should be well spaced throughout the six months.

Leaders must recognize the importance to a soldier of time that he can call his own. The entire chain of command should be sensitive to the long-recognized positive effect of mail from home on the morale of troops....and conversely of the negative impact of no mail. Modern technologies that make it possible for troops to communicate with the home front should be utilized to

better advantage.

As is true in combat so it is in peacekeeping that soldiers depend on fellow squad members for mutual support. When squad members complain about boredom to the extent that it is the dominant theme in discussions, then leaders should be concerned, for it may symbolize other problems. It may indicate that all is not well with group structure and unit cohesion. We were impressed that in those squads in which boredom was a recurring theme, a litany of negative experiences was expressed. It was apparent that these squads experienced internal conflict.

The leaders of the battalion that we studied were quite sensitive to the importance of squad cohesion, and made efforts to strengthen it. It was our impression that the majority of squads remained cohesive throughout the deployment. We believe this has contributed greatly to the success of the peacekeeping mission in the Sinai.

Interviews with troops who have returned from the Sinai peacekeeping mission reveal that their previous experiences notwithstanding, most would return if given the opportunity. Having had the experience, they now know what to expect.

NOTES

1. Indar J. Rikye, Michael Harbottle, and Bjorn Egge, The Thin Blue Line. New Haven: Yale University Press, 1974, p.115.
2. Morris Janowitz, "Beyond Deterrence: Alternative Conceptual Dimensions," in Ellen P. Stern, editor, The Limits of Military Intervention. Beverly Hills: Sage Publications, 1977, pp.384-385.
See also David R. Segal and Katharine Swift Gravino, "Peacekeeping as a Military Mission," in Charles D. Smith, editor, The 100% Challenge. Cabin John, Md.: Seven Locks Press, forthcoming.
3. David R. Segal, Jesse J. Harris, Joseph M. Rothberg, and David H. Marlowe, "Paratroopers as Peacekeepers: Deployment and Return." Armed Forces and Society, vol.10 (1984). In press.
4. See David R. Segal and Mady Wechsler Segal, "Change in Military Organization." Annual Review of Sociology, vol.9 (1983), p.154.
5. See for example David R. Segal, "Leadership, Management, and the Battlefield of the Future," in Jerry L. Hunt and John D. Blair, editors, Leadership and the Future Battlefield. New York: Pergamon. In press.
6. Structural changes in the volunteer army that make it less like a total institution or community, with colocation of workplace and residence, and more like a civilian workplace. spatially separated from the residence of its workers, are discussed in Jerald G. Bachman, John D. Blair, and David R. Segal, The All-Volunteer Force. Ann Arbor: University of Michigan Press, 1977: pp.151-155, and Charles C. Moskos, "Social Considerations of the All-Volunteer Force." Pp.129-150 in Brent Scowcroft, editor,

Military Service in the United States. Englewood Cliffs: Prentice-Hall, 1982.

7.Segal et al., in "Paratroopers as Peacekeepers," discuss the potential contradiction between the action orientation of paratroopers and the constabulary ethic.

8.Joseph M. Rothberg, Jesse J. Harris, Linda K. Jellen and Richard Pickle, "The Stress of Transitions: Illness Reports and the Health of the United States Battalion During the Initial Sinai MFO Deployment." Forthcoming.

9.This condition was not restricted to life in the observation posts. The senior author recalls getting up at his normal hour while in base camp and going to the dining hall for breakfast, only to find it closed. He learned later that it was Sunday: a day that the dining hall was open for brunch and supper only.

10.See Segal and Gravino, "Peacekeeping as a Military Mission."

"WOULD VOLUNTEER TO GO" (%)

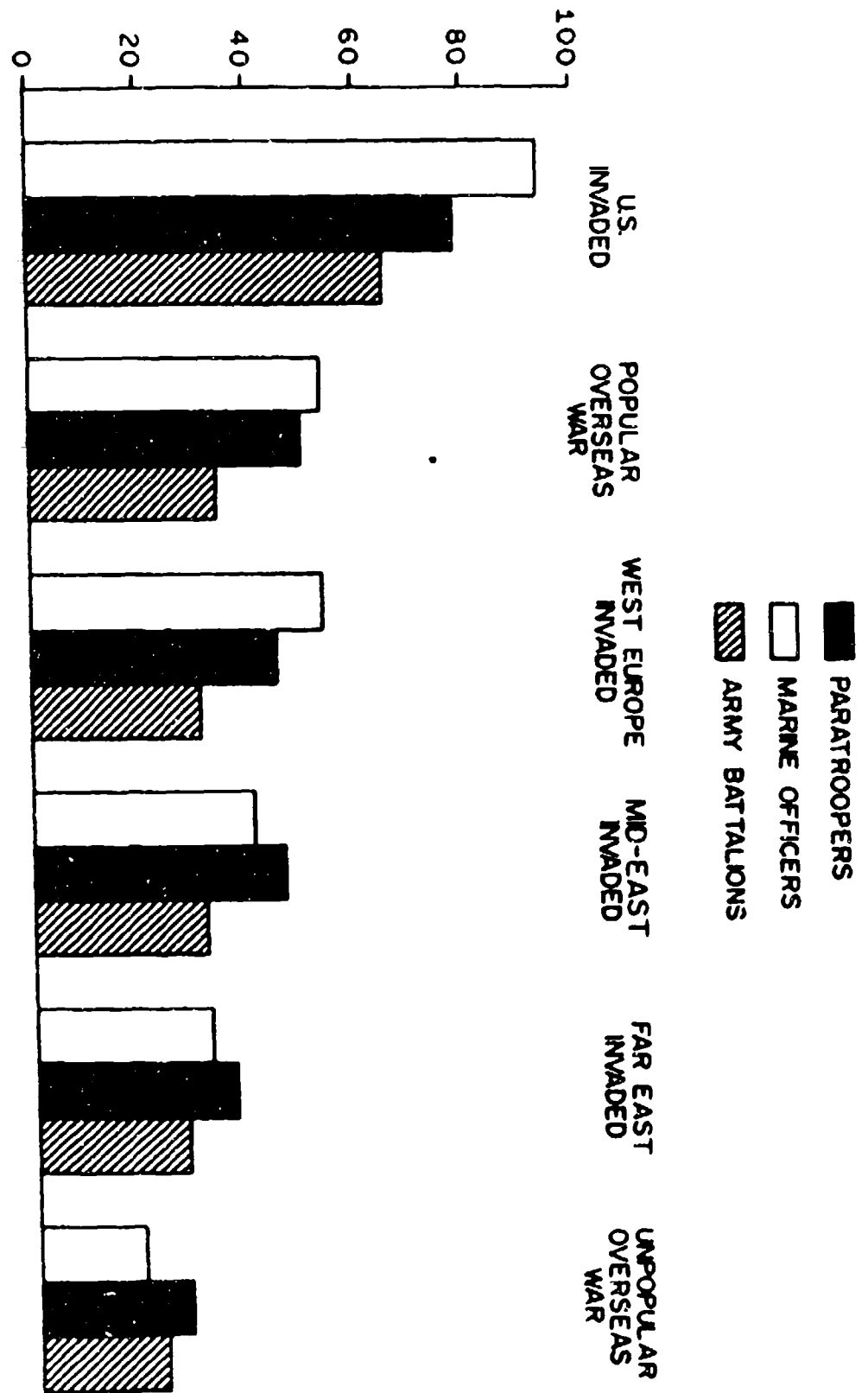


Table 1. CHANGES IN ATTITUDES REGARDING CONSTABULARY OPERATIONS AND MIDDLE-EAST DEPLOYMENTS

Question	Sinai Unit		Bragg Unit		Jungle Warfare	
	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2
Does a soldier who is well trained in military skills still require additional skills for peacekeeping service? (Percent Yes)	81.1	53.2	50.0	88.7	82.4	78.9
Can a soldier be effective in a peacekeeping job if he cannot use force except in self-defense? (Percent Yes)	62.7	82.1	72.0	49.2	51.0	57.7
Do you think that a peacekeeping job like the one in the Sinai will be (Percent Interesting or Exciting)	87.1	58.9	58.9	86.9	70.7	70.2
Is being part of a peacekeeping force the kind of job you think soldiers in the 82nd should be doing? (Percent Yes)	75.2	47.4	54.9	62.7	64.6	72.0
Peacekeeping assignments help a soldier's military career. (Percent Yes)	66.4	60.3	48.0	37.1	52.5	50.5
Importance of an invasion of an ally in the Middle East. (Percent giving high importance ratings)	51.4	29.5	43.2	31.7	51.4	52.1
					50.7	54.5
					71.8	60.0
					42.4	54.4
					54.5	46.8

**THE STRESS OF TRANSITIONS:
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UNITED STATES BATTALION DURING THE
INITIAL SINAI MFO DEPLOYMENT**



**UNITED STATES ARMY
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The extended deployment of soldiers to remote and harsh environments is inevitably accompanied by exposure to novel pathogens and environmental and psycho-social factors which can increase the medical noneffectiveness of the Army. For most United States soldiers, the Sinai certainly represents just such a remote and harsh environment with its hot dry climate, barren landscape and absence of English speaking inhabitants. In addition to the physical stress of the desert climate, the use of American soldiers to perform peace-keeping functions was anticipated to be psycho-socially stressful since their training had not been oriented toward a peace-keeping role (1).

A reasonable conclusion from civilian reports is that both the transition to a new physical environment and the stress of an altered social and cultural setting could be expected to affect the health and illness behavior of young adults (2). Illness behavior (visits to the University Health Service) was observed to be more frequent among male college students during their freshman year if they had a high score on a generalized stress index during their orientation period (3). There is also a report that important changes in the environment along with a cultural change leads to significant negative health changes (4).

The military has studied the stress of transition and the consequent degradation of mental and physical health both as a

problem of social psychology and a medical problem. Tyhurst provided a natural history of the behavior patterns during several types of transition states at an Army symposium (5). He described some of the civilian coping rituals or ameliorative procedures commonly observed to accompany transitions. Tyhurst's presentation can be considered to have galvanized work in this area despite his lack of population-based data and the controversy surrounding priority of defining this as a research area. Within the Navy, since the ships form natural ecological units with relatively homogeneous environmental exposure, health and illness behavior (recorded medical visits) have been used as outcome correlates of various organizational structures. In a major cross-sectional study, Gunderson (6) presented an analysis of the working conditions and psychiatric rates for various types of Vietnam combat ships. He concluded that his ratings of environmental conditions could be used to predict illness [7].

In previous medical epidemiology investigations, the illness

[7] This conclusion of predictability is equivalent to stating that the illness rate of personnel throughout time is determined by their environment at each and every time. Since Gunderson's measurements of illness rates were made on different groups of personnel at essentially the same time, his conclusion of predictability requires the strong assumption that the illness rates of multiple groups in different environments at the same time are (or will be) the same as the illness rates of one group moving through the different environments in successive times. This assumption is not unreasonable. It appears at the foundations of physics as the ergodic hypothesis of Boltzman and, although occasional exceptions have been observed for non-ideal gasses, the hypothesis is frequently accepted in the derivation of the equations of statistical mechanics.

rates (morbidity) of United Nations peace-keeping forces (UN-forces) in the Middle East in 1975-1976 were shown to vary with the country of origin of the troop contingents (8). The two year average annual morbidity rate was 30.8 (per 100 troops at-risk) for the entire seven nation UN-force. However, the morbidity ranged from a low of 15.1 for Swedish troops to a high of 44.2 for Canadians. The morbidity of these soldiers prior to their deployment to the Middle East is not known. Stress reactions were common among Norwegian UN-forces in Lebanon in 1978 (9); in addition, gastrointestinal disorders, perhaps with a psychosocial component, represented a large proportion of the complaints reported by UN-forces stationed in the Sinai in 1975-1976 (10).

We report here an overview of the health of the United States Battalion deployed to the Sinai as part of the first wave U.S. contribution to the Multinational Force and Observers (MFO) in 1982. Our longitudinal data, from several measures derived from records of the health care system, clearly reveal the effects of the stress of transition on health and health related behavior. We also provide a conceptual model and discuss the use of information from the measures to make decisions on health care resources.

STUDY POPULATION AND METHOD

We studied five companies of one battalion (3 combat companies, a support company and a Headquarters company). These

companies were about half of the United States contribution to the Sinai Multinational Force and Observers and were assigned, in the notation of the 1979 Treaty of Peace, to the Southern Sector of Zone C. The distribution of the entire force and the geography of the zones has been published by Dunn (11). Subsequent references to Sinai locations will be within this sector. The soldiers had been part of an on-going study of the health consequences of brief deployments (12), and comparison data are available for times preceding the Sinai Deployment. The comprehensive reporting system, which was developed to detect the effects of stress, and the baseline data, for the 1980-1981 time period (13), have been described previously. The six hundred men consisted of several hundred senior male personnel (Sr) in grade E5 or above including Officers, and about twice as many male junior personnel (Jr) in grade E2 through E4. The strength remained stable throughout the deployment with the number of replacements amounting to less than 5% of the total for the entire time period. There was a seven year difference in the average ages of the Sr and Jr personnel (29 versus 22).

The time frame consists of 160 days in the Sinai from March through August 1982. This time frame had 15 periods which made up three major segments: an initial 26 days before the Israeli withdrawal (period 1), the 120 days of active patrol (periods 2 through 13), and the final 14 days (periods 14 and 15). During the initial period, all of the soldiers were in the base camp, essentially in the same environment. During the 120 day active

patrol segment, the duty location of each of the three combat companies rotated through four cycles of 3 periods. Each cycle consisted of approximately 10 days at the Base camp, 10 days at an observation post in the North, and 10 days at an observation post in the South (a total of about 30 days per cycle). The exact number of days in each period of each cycle were used in the rate computations. Each of the three companies started at a different phase of the cycle so that there was complete coverage during the entire time period.

The medical support of the entire Sinai MFO has been described in detail elsewhere (14). The health care facilities for the companies in the U.S. Battalion consisted of a clinic at the base camp and aid stations at the sector control center and corpsmen at the majority of the observation posts. The clinic was capable of providing emergency treatment, life support and routine sick call. The inpatient holding capacity was four beds. Additionally, the clinic was able to provide dental, clinical laboratory, x-ray and pharmacy services. The North and South each had a forward aid station supervised by a senior enlisted medic. The stations had personnel on standby 24 hours a day for medical contingencies. A helicopter was available at all times for evacuation to the nearest permanent hospital (in Israel).

The health of the soldiers was measured by both hospitalization rates and clinic sick call visit rates. Because larger numerical values have lower variability, the sick call visit rate is more sensitive than the hospitalization rate to changes. The

transitions of the soldiers' duty assignments were of two types: the one-time transition from garrison in the United States to duty in the Sinai, and the repeated transitions between remote observation posts and the Base camp.

The primary measurement of health that we used was the rate of sick call visits to the troop medical clinic expressed as an annual rate per hundred soldiers at risk. For each soldier's visit, the reason for the visit (presenting complaint), identification data and disposition were gathered from the troop medical clinic sign-in log and from the medical records. The data were captured by two of the authors who accompanied the U.S. Battalion as attached personnel during the entire 160 day deployment. Four broad categories were formed from the individual reasons for visit: 1) Gastrointestinal diseases/symptoms (GI), 2) Musculoskeletal diseases/symptoms and Injuries (MS/I), 3) Diseases and Symptoms not classified above (D/S), and 4) Other visits not elsewhere classified (OTH). A person-based registry of visit records was constructed and, for the 1% of soldiers with the most visits, the number of distinct problems was estimated. Inspection of the presenting problem codes and the time interval between visits was used to determine if successive visits were the result of the same problem.

The sign-in log data records in the Sinai are known to be incomplete for the initial time period. The troop medical clinic was not functioning for the first few days. For the remainder of the Sinai deployment, the completeness of the recording of visits

varied with the duty location of the soldier. While in base camp, the soldiers usually reported directly to the clinic where every visit was recorded. On the outposts, medical problems were screened and resolved by the corpsman, who occasionally failed to record a visit. The morbidity (illness) recording of hospital cases was done independently of the sign-in log and had no missing records.

FINDINGS

Mortality and Hospitalization

There were no deaths of U.S. soldiers during the first six months in the Sinai. Thirty-two soldiers were hospitalized one or more times (30 had one admission only, one had two admissions for different problems and one had three admissions for the same injury) for a total of 35 hospitalizations. Of these, 14 were direct admissions and 21 were the disposition of a sick call visit. The overall rate of hospitalizations was 11.7 per 100 strength with rates of 17.0, 10.1, 11.6, 6.3 and 11.1 for the three combat companies, the support company and the headquarters company respectively. The distribution among broad categories of reasons for hospitalizations were 18% Gastrointestinal disease/symptoms, 33% Musculoskeletal disease/symptoms and Injuries, 18% for direct heat effects of the environment and 30% for Disease and Symptoms not elsewhere classified.

Sick Call

There were a total of 1796 sick call visits. The disposition of the visits were hospitalization (n=21), restriction to living quarters, "quarters" (n=194), or return to duty with a restriction of activity, "profile" (n=151). The remainder (n=1430) had a disposition of "return to duty".

Overall, the sick call visits occurred at an annual rate of 663 visits per 100 soldiers. Within the battalion, the rates were 829/100 for the one support company, 668/100 for the three combat companies, and 638/100 for the HQ company. In contrast, the overall rate for the same battalion at Fort Bragg during June 1980 through May 1981 was 432/100 (361/100 for the support company, 458/100 for the three combat companies and 426/100 for the HQ company). These figures represent increases in the Sinai of 54%, 130%, 46% and 49% respectively.

The rates for the sick call visits during the 15 successive time periods are shown in Figure 1. The high rate in the initial period, and another elevated period during the second rotation cycle, are clearly evident. The distribution of visits among the 4 major categories of visits over the 15 time periods is also seen in Figure 1. Overall, the Musculoskeletal category was reported in one third of the visits while Gastrointestinal problems were only half as frequent. The remaining visits were about equally divided between Diseases and Symptoms not elsewhere classified, and Other reasons for visit. Although Gastrointestinal problems represent about one third of all visits within

several early time periods, they decreased to less than 10% during the last five time periods. The distribution of visits among these categories for the same battalion at Fort Bragg shows a higher proportion of Musculoskeletal (two-fifths) than Gastrointestinal visits (one-twentieth). The remainder of the visits were approximately one-third Diseases and Symptoms not elsewhere classified and about one-fifth Other.

Visits directly attributable to the effects of the desert climate (i.e., dehydration and heat effects) occurred at an overall annual rate of 15/100 and at a rate of 25/100 in the initial period. If we include visits for headache (which may be an indirect climate effect) the rate increases to 24/100 overall and 45/100 for the initial time period. During the initial time period, the rate for the adverse effects of climate was roughly equal to the rate for Gastrointestinal. The rate for climate effects was only a quarter of the Gastrointestinal rate over the whole time span.

There was a one day peak of visits that involved 10% of the total strength. This peak was equivalent to an annual visit rate of 3721/100 soldiers. The peak occurred during the first week and was mostly attributed to Gastrointestinal problems. On that day, two of the combat companies (1 and 2 in the notation of Table 1) had similar high rates while the rate for the third combat company was only half of the others. The reasons for the variability in company rates are not immediately evident. As the mission progressed, a trend developed in which Gastrointestinal

problems were replaced by repeated visits for injury related problems.

The presenting problem categories showed very few visits that were specifically psychiatric or psycho-social. Based on information in the sign-in log, there were two referrals for psychiatric consultations and one visit each for therapy, counseling, general psychiatric examination, and depression. The on-site observers, however, noted a total of 18 cases that had significant psychiatric or psycho-social behavioral problems. There were 4 exams for unspecified reasons with negative findings and 76 visits with no data on reason for visit or findings.

Within the patrol segment, the effect on the sick call rates of being on an outpost or at base camp was analyzed by aggregating sick call visits into intervals during which the companies were in the same phase of the cycle. The information in Table 1 shows the rate for each company at each duty location. The highest rates occurred for the combat companies at the base phase of the cycle.

Data for the same companies at Fort Bragg are available for off-post deployments and for the five workdays before and after a deployment (15). We can compare the Sinai and Fort Bragg experience of the same companies by aggregating the North and South outpost phases (to get a "deployment" rate), and by dividing the 10 day Base phase into a first half (the 5 days after returning from the "deployment", the "post-days"), and a second half (the five days before going out on the next "deployment", the "pre-

days"). As seen in Table 2, the companies exhibit the same pattern of more visits in the days just prior to the "deployment" in both locations. The pattern is exaggerated in the Sinai where the pre to post difference was 24% compared to 21% at Fort Bragg.

Using the registry to look at the number of visits per soldier, we found that the range was from none to 27 visits for any one soldier. Extensive users, eight or more visits per soldier (n=60), represent 10% of the total population. On average, these soldiers sought medical care more frequently than once every three weeks for more than five months. Together they made 678 visits and accounted for 38% of the total number of visits.

Selected case information was calculated for the six soldiers who were recorded as having the largest number of visits. Musculoskeletal disease/symptom and Injuries problems accounted for 70% of the visits for these individuals but were only 33% in the overall population (Chi-Sq = 60.6, df = 1, P LT 0.001). These soldiers had 16 or more (the maximum was 27) visits and the range of distinct problems varied from one to 17. There was considerable variability in the number of visits per problem with all of these extensive users averaging more than one visit per problem and the extreme being 27 visits for one problem.

DISCUSSION

The annual hospitalization morbidity value of 11.7 per 100 soldiers at-risk for the United States Battalion in the Sinai is

lower than the average value reported for any of the UN-forces in the Middle East in 1975-1976. By this comparison, the health of the soldiers of the U.S. Battalion was better than might have been expected. The sanitation and heat policies undoubtedly contributed to curtailing excessive morbidity. However, when compared to the morbidity value of 9.1 for male United States soldiers in Europe at about the same time (15), the value in the Sinai is slightly elevated and may reflect the uniqueness of that location.

The findings of the elevated rates in the days prior to going to the field or posts replicates the effect observed earlier for other deployments. The increased visit rate at the transition to the field documents the increased use of health care at the time of deployment. Although there is no direct evidence to support the conjecture, some of the intestinal and digestive visits may reflect the stress of this peace-keeping mission in the Sinai on the soldier.

In general, the records of medical visits of deployed soldiers can show the effects of stressors in several ways. The records may show more visits for specific symptoms and/or the average visit rate may increase. There were very few mentions of psychiatric or psycho-social problems in the records of the hospitalized cases or in the sick call records. That statement requires a note of caution and a qualification. Based on conversations with the medics and physicians on the scene, the health personnel were of the opinion that the sign-in logs do not

completely capture all of the stress related and mental distress visits. The findings reported here represent a lowest estimate of the true impact of transitions on health.

The picture of psychiatric or psycho-social problems (based on the small number of reported reasons for visit) is quite different when one considers the data from our ad hoc registry of visits. Some of the extensive users of medical services were probably using the visits as a way to cope with the stress of their military assignment. Although the individual medic can easily recognize the returning patient with minimal problems, that patient can not be so readily identified when there is more than one medic that he can visit. Unfortunately, there is no routine medical records system that generates a comprehensive patient registry for use in the field. Without such a system, we are only able to characterize excessive use retrospectively. As a result, the detection of this form of situational reaction is done through command channels (which can account for the soldiers who "ride the sick call book") rather than through medical channels. Whatever label we use for this individual, he is, nevertheless, a heavy consumer of medical services.

While it is tempting to speculate that the increased visits prior to rotating to the outposts are entirely determined by the situation, a more accurate approach is to use a model of the soldier's behavior which separates the medical visits (conceptually, at least) into an elastic and an inelastic component. We assume that the level of care recorded on the outposts is the

inelastic minimum (the traditional acute medical problem) and that the increase of the base camp rate over the outpost rate is the elastic component. We further assume that the elastic component itself is divided into a set of deferrable, or elective, reasons for visit whose timing is not critical (e.g., "I should have this wart removed sometime.") and a set of reasons for visit which may be critical in time but not specifically organic (e.g., "I just have to talk to someone now."). These latter problems have predominantly psycho-social origins and in many cases represent a reaction to some short term situational stress. The current data collection process does not provide enough detail to allow the authors to assign visits to these categories with any degree of confidence.

The continuing problem of the Army's health care delivery system is to maintain the balance between providing care for the inelastic component while encouraging the soldiers to deal with the elastic demand in the most appropriate channels. The visits in the elastic component represent real human (but not necessarily medical) needs and there are alternative non-medical human services that the soldiers could use and which probably would be more cost-effective in resolving the problem. A recent report (17) describes the costs and patterns of medical and mental health visits in civilian patients following the onset of a chronic disease. That report showed a reduction in overall costs and claimed to improve the quality and appropriateness of medical care when persons recently diagnosed with a chronic disease made

outpatient mental health visits. Since there are differences within the Army in the cost and availability of the medical, psychological and social work portions of the health care system, knowledge of what type of health care provider is most appropriate for any visit could potentially lower the cost. We hypothesize that a more vigorous policy of referring the extensive sick call user to the mental health services would provide better overall Army health care.

The development of a system for the tabulation of the number of visits and problems per soldier and the comparison of these data with probability models of multiple visits is a potentially useful tool for the monitoring and analysis of future deployments or high stress situations. The current civilian development of Diagnosis Related Groups (18) should lead to clusters of diagnoses which represent significant syndromes in the inpatient setting. A parallel effort for outpatient health care would be useful. The quantification of the ways in which soldiers express their health needs within different organizations with different missions can provide information on how individual predisposition and population pressures lead to military medical noneffectiveness.

In addition to the primary benefit of this stress-sensitive monitoring system (which would be to improve the health of the soldiers by providing better continuity of care), such a system would also have considerable research potential. The most obvious application would be studies of the extent to which

organizational issues (manpower and leadership policies) impact on the well-being of the soldiers. In principle, this should be able to detect, on an on-going basis, both the inherently negative consequences of some policies and the protective effects of other policies.

SUMMARY

The health of the United States soldiers in the U.S. Battalion was better than that of the UN-forces in that area in 1975-1976. The health of the soldiers in the Sinai was worse than that of soldiers in the same battalion 18 months previously in the United States. There were many injuries and related musculoskeletal problems which are commonly found among combat soldiers. There was a high rate of Gastrointestinal problems in the initial time period. There were relatively few explicitly psychiatric problems although there were a number of soldiers whose repeated visits to the clinic may have been primarily for psycho-social stress related reasons. The soldiers showed a lower sick call rate while on outpost missions compared to base camp and showed a higher rate in the five day period preceding rotation to an outpost compared to the five day period following rotation. The higher rate preceding rotation may be one of the ways that these soldiers dealt with the stress of their mission.

In conclusion, the health of this population of soldiers was indeed influenced by their mission. There was a general increase in the use of the medical resources during transition periods as well as an increase in environmentally influenced problems. We think that this effect of transitions is a common aspect of the military and not specific to these paratroopers. The age old problem of maintaining the health of the soldiers faced with transitions has not been resolved.

CITATIONS

1. D.R.Segal, J.Harris, J.M.Rothberg, D.H.Marlowe, Paratroopers as Peace-keepers. ARMED FORCES AND SOCIETY 10 (in press, 1984).
2. STRESSFUL LIFE EVENTS: THEIR NATURE AND EFFECTS, B.S.Dohrenwend and B.P.Dohrenwend eds. Wiley, NY. 1981; STRESSFUL LIFE EVENTS AND THEIR CONTEXTS, B.S.Dohrenwend and B.P.Dohrenwend eds. Wiley, NY. 1974.
3. D.Mechanic and E.H.Volkart, Stress, Illness Behavior, and the Sick Role. AMER SOCIOL REV 26(1): 51-58, 1961.
4. L.E.Hinkle Jr, The Effects of Exposure to Cultural Change, Social Change, and Changes in Interpersonal Relationships on Health, pp 9-44 in STRESSFUL LIFE EVENTS, Wiley, NY, 1974.
5. J.S.Tyhurst, The Role of Transition States--Including Disasters-- in Mental Illness. in SYMPOSIUM ON PREVENTIVE AND SOCIAL PSYCHIATRY, Walter Reed Army Institute of Research, Washington DC, US Government Printing Office, 1957.
6. E.K.E.Gunderson, Health and Adjustment of Men at Sea. in THE SOCIAL PSYCHOLOGY OF MILITARY SERVICE, Sage Publications, Beverly

Hills, 1976.

8. K.Ulewicz and E.Koldej, The Morbidity of the United Nations Emergency Forces in the Middle-East in 1975-1976. BIUL. INST. MED. MORSK. 30(3/4): 321-327, 1979.

9. A.Waersted, [Stress reactions and the use of intoxicants in Norwegian UN soldiers in Lebanon]. TIDSSKR NOR LAEGEFOREN 99(23):1076-1067, 1979.

10. B.Rojek, et al., [Tropical diseases treated at the Infection Observation Department of the UN Armed Forces Hospital in the Middle East during the first and last (XII) troop change]. PRZEGL EPIDEMIOL 36(3-4) 373-376, 1982.

11. M.A.Dunn and R.W.Smerz, Medical Support of the Sinai Multinational Force and Observers, 1982. MILITARY MEDICINE 148: 773-778, 1983.

12. J.M.Rothberg, L.K.Jellen, and R.Oldakowski, The Health Consequences of Deployment I: Data Gathering. Defense Technical Information Center, Alexandria, VA. ADA124509. (1983).

13. L.K.Jellen, and J.M.Rothberg, The Health Consequences of Deployment III; Types and Rates of Outpatient Sick call Visits, June 1980-May 1981 Combat Arms and Support Troops. Defense

Technical Information Center, Alexandria, VA. ADA124436.
(1983); L.K.Jellen, and J.M.Rothberg, The Health Consequences of
Deployment V: Impact of Military Activity and Associated
Transitional Periods on Combat Arms Outpatient Sick call Rates.
Defense Technical Information Center, Alexandria, VA. ADA124496.
(1983).

14. Dunn and Smerz, op. cit.

15. Jellen and Rothberg, op. cit.

16. HEALTH OF THE ARMY, Department of the Army, Office of the
Surgeon General, Washington, DC, April 1982.

17. H.J.Schlessinger, E.Mumford, G.V.Glass, C.Patrick and S.
Sharfstein. Mental Health Treatment and Medical Care Utilization
in a Fee-For-Service System: Outpatient Mental Health following
the Onset of a Chronic Disease. AMERICAN JOURNAL OF PUBLIC
HEALTH 73: 422-429 (1983).

18. Department Health Human Services, Prospective Payments for
Medicare Inpatient Hospital Services. FEDERAL REGISTER 48:39751
(1983).

FIGURE LEGENDS

Figure 1. Sick call visits by type over time for selected companies of the United States MFO.

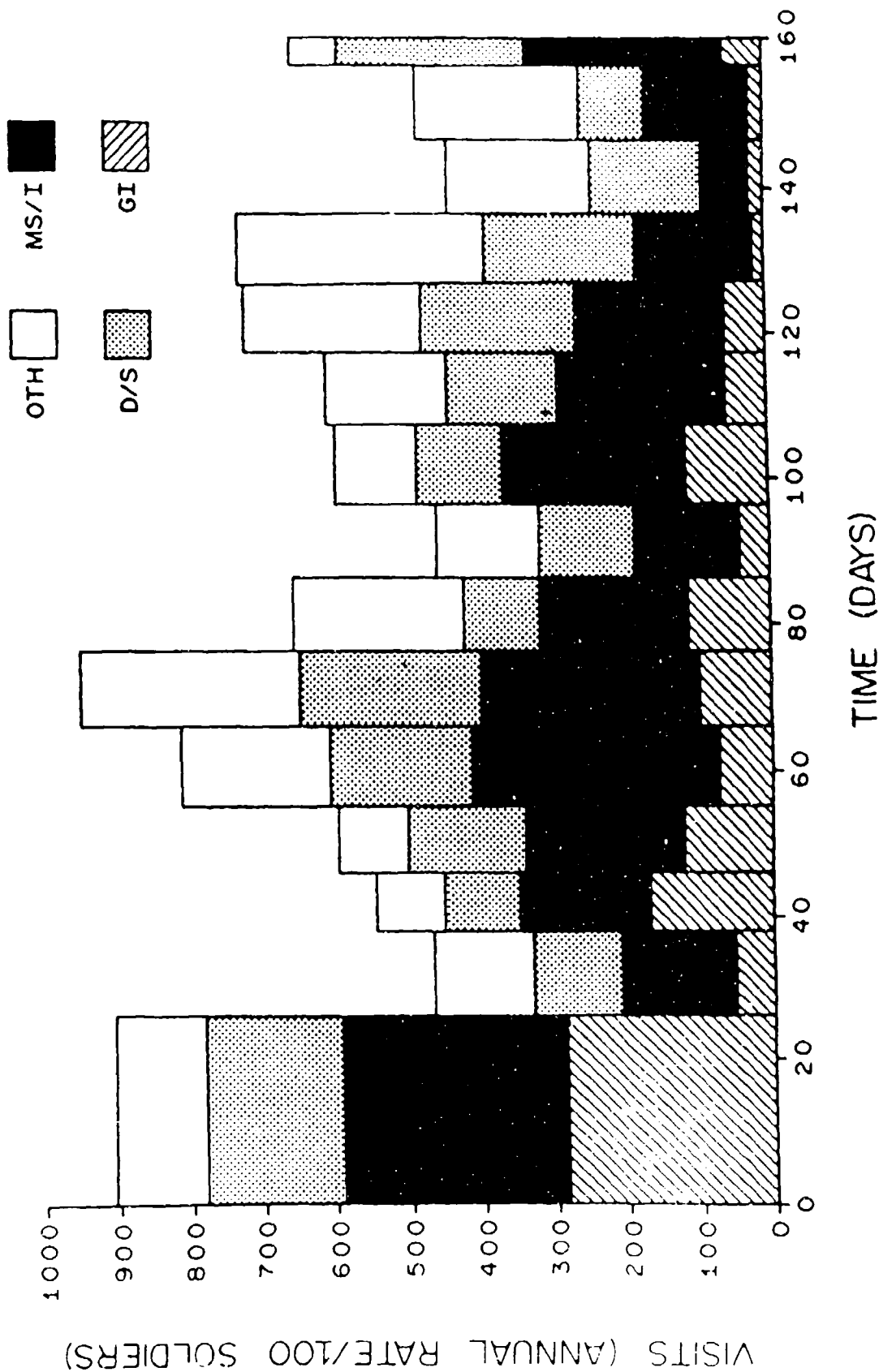


Table 1: US Army Sinai MFO*, Annual Sick call Visit Rate
During Deployment, by Site within Southern Sector, Zone C.

Location						
(annual rate per 100)						
Company**	Initial	Base	North	South	Final	Total
1	1243(1152)	1481(104)	271(44)	484(50)	1463(319)	838(39)
2	922(98)	97(79)	222(40)	300(46)	935(255)	619(34)
3	838(92)	1057(84)	243(35)	300(43)	***	553(30)
(123)	997(59)	1163(51)	246(23)	370(27)	1205(204)	668(20)
4	771(123)	/-----840(57)-----/				829(52)
5	726(84)	/-----621(34)-----/				638(32)
=====						
Total	909(45)	/-----615(16)-----/				663(16)

* Headquarters, Combat Support, and 3 Combat Companies only.

** 1,2,3 = combat companies

4 = support company

5 = headquarters company

*** Data collection terminated .

Standard error of the mean computed as the rate of the square root of the number of cases.

Table 2: US Army Sinai MFO*, Annual Sick call Rate
During Deployments, by Location.

	(annual rate per 100)	
	Fort Bragg	Sinai
	<u>Jun '80-May '81</u>	<u>Mar '82-Aug '82</u>
PRE_DAYS**	810(122a)	1287(76)
DEPLOYMENT	672(39)	309(18)
POST-DAYS***	687(120)	1039(69)

* Three Combat Companies only.

** Workdays occurring 5 days before the deployment.

*** Workdays occurring 5 days after the deployment.

a Standard error of the mean computed as the rate of the square
root of the number of cases.

PEACEKEEPING IN THE SINAI

CPT John Miller, Ph.D.
101st Airborne Division

I'm Captain Miller, Captain John Miller, and as Dave said I came back after six months in the Sinai with the 101st. I was fourth to go over. I returned this past January. My assignment there is a little bit different than Col Harris' in that I had to fight to go over. The battalion commander that went over with the 101st didn't want a "shrink." And I being a hard-headed person, wanted to go. So I had to fight for the spot. There still is no authorized slot over there for a mental health officer. My thing started with having to convince this battalion commander that a psychologist could be useful to him. For the most part, he didn't want to hear it. So I went through the medical battalion and the division surgeon with the 101st. I was assigned to the 362 Med Battalion as a division psychologist so I had a little bit of pull with my own battalion commander and with the division surgeon. That is about as far as it went. So what I did was for about four or five months prior to going over, I kept putting a little birdie in my battalion commander's ear and the division surgeon. They put a little birdie in the battalion commander's ear with the second of 327. He got so tired of these little birdies being put in his ear that he finally decided, "All right, the hell with it. I'll take the damn shrink if you will just get off my back." That's how I started.

So about for two months prior to going over I trained with the second 327th Infantry Battalion. That training consisted primarily with acclimatization. At that time Ft Campbell (we were approaching the summer so temperatures were beginning to rise) had an average of about 75 to 85 percent humidity rate so it was pretty easy to do a little bit of heat training. We also did a lot of PT to get people physically ready to get involved in the kind of mission that we had over in the Sinai. We also got people together early, the task force, so that we could build this cohesion, this morale, among the soldiers. As we continued the training cycle and more and more of the attached personnel, people like myself, the MPs, the aviation battalion,.... beginning to come on board and actually began to form the task force, you could see, actually among the troops, right down to the brand new privates that came to us out of AIT, that they were identifying with this battalion. Not as a second 327th Infantry Battalion of the 101st Airborne Division, but as a second 327th Task Force to the MFO because there was something very, very different about this group of people that was developing. We had MPs with us. We had a lot of medics with us. We had the aviation personnel that were training with us. We had engineers. We had all the attachments that would be brought together that we were going to use over in the Sinai. So we began developing morale, high morale and unit cohesion right off the bat. And as Col Harris says, it is probably the two most important things you are going to need when you deploy to the Sinai, an area in which you are going to be isolated. You have to have some kind of identity for yourself or what you are doing. We did that.

The next phase after training began was to issue equipment. We were issued our uniforms. As you saw on the slides, we had these chocolate chip uniforms on. We were issued a ... beret, the sort of orange colored beret. We were issued our jungle boots instead of jump boots. We were

issued two quart canteens in addition to our one quart canteens. All of this stuff started to look very different from everybody else in the division. We started wearing our uniforms early, about a month prior to deployment. We wore them in division parades, in battalion training formations in which we were doing some drill and ceremony kinds of formations. So on post we were seen as being different. We were seen as being special. That again added to the morale, the cohesion of the unit and a lot of the esprit de corps that developed as a result of that.

As Col Harris said, prior to going over we had much of the same thing that the 82nd had. We had a big send off, a band was there. They had someone from the 18th Airborne Corps who gave us this really rousing kind of speech, telling us what a great job we were going to do over there and how important it was. Again, when you look at some of these eighteen and nineteen year old kids right out of AIT, they were awed by it. I mean they were just... they couldn't wait to get over there. We again, we started off on the right foot. We started off with a lot of heightened morale, heightened cohesion, esprit de corps, and everybody was just geared up to go.

What's a psychologist going to do in all this? Well, I looked at it as being six months of sun and fun in the Sinai. This was going to be something that was really enjoyable. I was going to be able to go over there and do something that nobody had ever done before. That I probably wouldn't have to do a whole lot because the battalion commander kept telling me, "Well, we don't have a drug problem. We don't have an alcohol problem. None of my troops are going to have any kind of anxiety problems. I've got the best damn battalion in the world. We don't call ourselves 'No Slack' for nothing." And I said, "OK, sir. I understand all that, airborne, air assault all the way, we're going to do it!"

So we went over there and he basically isolated me totally from anything and everything that he had to do. He didn't want to be associated with a psychologist, no way in hell was he going to be associated with a psychologist. Well, after about two months over there, when some of the underlying problems start to come up and I started taking care of some of those problems, suddenly it was no longer, "Yeah, that's Captain Miller, don't worry about him. He's taking care of his own stuff." Well, I became his psychologist. He'd say, "Captain Miller, come over here. I want to introduce you to so and so. This is my psychologist, Captain Miller."

What were some of the problems that we had. I'm going to put problems in quotes because as far as problem areas, we had maybe two personnel who were problem people. Much as if you read in the literature about combat stress reactions, what's the primary combat stress reaction that you get? In most situations it's usually, particularly in Vietnam it was, premorbid personalities. People who had premorbid type personalities prior to going over to Vietnam that had the greatest number of problems. In the Sinai where it was a non-combat situation, it was basically the same thing. Those people who had problems with drugs prior to going over found the hashish and continued to use it. We had maybe four or five people that were like that. Those individuals who had family problems prior to going over continued to have family problems where they were over in the Sinai. Those marriages that were on the rocks prior to people going over to the Sinai broke up. We got a lot of "Dear John, Harry... I've filed my divorce

papers. By the time you get back, I will be with mother in Santa Fe, New Mexico." We had about eight of those that came through in one week. That was a busy week for me. Individuals who had trouble getting along with others prior to deployment continued to have problems getting along with other individuals. Even more so in the Sinai because they had to bunk with each other and rap on the OPs and CPs that we sent over in rather crowded living situations. You saw some of the trailers in the slides. Unfortunately, my slides are still packed away. These trailers were really rather small. You had anywhere from ten to twelve people, fifteen people per trailer, so we had trundle bunks. Now the sleeping arrangements were really very good. They did have box spring mattresses. They were double bunk kinds of mattresses, our bedding situation. However, it was crowded. You didn't have a whole lot of space in the trailer. As a result of that when tempers flaired among one or two people, everybody got involved in it. The positive side of that is that peer pressure works and if you have one or two people that are having problems in a trailer of ten or fifteen people, then the other other twelve or however many people have a great deal of influence on those one or two people. It only happens once or twice, maybe. You know the old joke about the farmer who was going down the road with his new bride. He had to hit the mule over the head, "Bang, that's one. Bang, that's two." The third time he pulled out a forty-five and blew the old donkey away. Well, it worked that way in the Sinai, too. You messed up maybe twice on an OP or CP before peer pressure took care of you real quick. It was very, very effective. Things like that tended not to filter up the lines to the commanders but were taken care of at the squad level. Sometimes, they were taken care of at the platoon level but usually it didn't spread that far.

QUESTION: What sort of things did they do among themselves to supply that behavior modification?

Well, from baseline kinds of things of separating personnel to arranging for the people that had the problems to pull double or triple duty. They didn't get passes to go to Tel Aviv or Again that was at squad leader level. The squad leader said, "OK, I've got fifteen people that are eligible for passes." Well, these people weren't eligible for passes because the squad leader took care of them. They didn't go to they weren't allowed some of the freedoms. For example, on the OPs and CPs that do that, they pulled extra guard duty, they pulled extra training, they were not allowed to dispose of the human waste products because that was one of the positive things that you got to do on the OPs and CPs.

QUESTION: What's an OP and CP?

An OP is an observation point. A CP is a check point. Observation points were located in typically isolated areas. The check points were located in areas of heavy traffic density. We had a check point right at the border between the Sinai coastal region and the ..., which was a sort of northern most city. T... was a disputed area between the Egyptians and Israelis. They couldn't come to terms on who owned it. The next town over would be A..., that was in Israel. It was one of the R and R places that soldiers went to.

As a result of being over in the Sinai and being in isolated kinds of areas, one would figure that out of necessity, there would be some kind of

difficulties that are going to occur. People are going to become anxious. They are going to become frustrated, etc. Well, my job as Task Force psychologist, as I envisioned it, was to spend most of my time on the OPs and CPs with personnel. If you sit in South Camp all the time, you get to see a lot of personnel, but you really don't get to do much with them. I spent the majority of my time on the OPs and CPs staying with and visiting with the troops, going out on squad level kinds of recon missions, observation missions, etc. Staying at a place one night, two nights, three nights, however long it took to completely work my way through all the personnel that were there. I made sure that I introduced myself to them, that I sat and talked with them a little bit, got to know them, got to know what their family situation was like, if they were married, if they had kids, if they were single, what sorts of things were going on back home. Basically, to let those troops know who I was and what I had to offer them as far as services go, not as a psychologist, but as an officer whom they were going to be able to sit down and talk with. I wasn't going to lay any kind of heavy psychological trip on them. I wasn't going to force them into any kind of "counseling and therapy" because they were air assault troops. They didn't want to hear any of that. Air assault troops do not have problems. Air assault, by the way, is the 101st Airborne Division Air Assault as opposed to the 82nd Airborne Division Airborne.

As a result of going out there and getting to know all these troops, I had approximately 1,200 clinical contacts in the six months that I was there. That is, I spent approximately anywhere from a thousand to fifteen hundred hours sitting down and talking with troops about troop problems, anxiety problems, home problems, problems with the squad leaders, etc. So when you talk about your personnel not doing much of anything like it before, I worked my ass off.

Giving an example of the kinds of things that occurred after about two months there and most of the troops got to know me, I was lying outside of my trailer one Sunday morning about 9:00 in a skimpy little bathing suit getting some sun. A troop comes walking up to me and said, "Hey, sir, you got a minute." I said, "Sure, what's going on?" He sat down for about two hours telling me about his problems at home. He had just gotten a letter from his wife who was filing for divorce. He didn't want the divorce. What could he do about it? We spent most of the rest of the day, working through all the processes that you have to work through to get that person a call back home, to get in touch with the JAG attorneys whom I had to get off the other side of the thing because they were over there playing baseball, etc.

On the OPs and PCs it was even better, because I would be there at night and we would go out on a night recon or something and get back about midnight or one o'clock in the morning. We would be sitting down and pulling off our uniforms and stuff and the guys would start asking me about, "You know, I've got this girl friend back home. I haven't gotten a letter from her in a couple of days. It's really starting to bother me. I got on my squad leader the other day, and I don't know why, I just started yelling and screaming at him. That's not like me, you know. Am I going crazy?" That was how the troops kind of introduced themselves to me. These kinds of things are going on. "What do you think I ought to do about that? What can I do about it? Do you think I ought to dump her? Do you think I ought to just forget about it or what?" Those are the kinds of

things we say day in and day out there. Simple little things that they probably wouldn't share with one of their buddies because their buddies would say, "Ah, dump the broad, she ain't worth it." And that is not what they wanted to hear.

We had a lot of sleep problems. Although people slept a lot, many didn't sleep soundly and a number of the troops I worked with had recurring kind of night terrors. Fear, especially after the Beirut bombings when we heard about that. A lot of troops began to have night terrors (when I say a lot of the troops, I mean one or two people per OP or PC) about being bombed or something like that, having the OP or PC attacked. They were really simple kinds of things that they were afraid to share with anybody else because they didn't think anybody else was going through that. But because I was there and I was available, they said, "Hey, sir, have you ever had a nightmare before?" Oh, yeah, I have nightmares all the time. I worry about this, I worry about that. "Where do nightmares come from?" A lot of it was basic education stuff. They wanted answers to things that nobody really ... for, that they were afraid to get, ask questions from the people. So those were the kinds of things that we saw over there.

QUESTION: I would like to ask a question. I'm an advocate of that. I see that methodology as opposed to traditional methodology for practice that we are working against. We are working on ... this as a matter of fact. You made yourself available without benefit of file folders and without benefit of intake cards, without benefit of medical records. You moved around and you went out and you didn't have to do a technique. It was basically educational stuff. What would have been your statistics on a thousand to fifteen hundred had you remained in a clinical setting at the base camp and waited for people to come in and insisted on the medical record being opened on everybody that came in.

About sixteen. As a matter of fact, I had thirteen folders. Those are thirteen people that I saw over a long period of time. The only reason I kept folders on them was basically I knew they were going to be long-term cases and they were. For example, there was a Vietnam veteran who was going through delayed stressing from over there. There was a young sergeant who was married, probably about three or four weeks before going to the Sinai. And without getting into details, his wife had had some problems prior to their getting married and all he could think of was his wife was out there running around on him. He knew it because "She was doing it before, so I know she is doing it now." That sort of thing. He was one of our support personnel for the gymnasium. Part of his problem was that he kept going into the weight room, kicking weights around and getting guys in there angry with him, and there were an awful lot of threats against him. His sergeant basically said to him, "I think it's about time you run over and talk to Captain Miller." I saw him for about the last three months that we were over there.

A couple of individuals. If I were going to see somebody for more than about four or five times, I would open up a folder on them. Only because I needed to be able to go back and reference my own material to have some kind of a plan with which to work. Other individuals though, when I say that I had between 12 and 15 hundred clinical contacts, those aren't people that I necessarily sought out, they are people that once I was there and after I had talked to them once, would come back to me and say, "You know, Sir, I

would really like to sit down with you for a long talk about something that's been going on." Sure, why not. Let's grab a rock over here. Or I'd been in the kitchen at night and Col Harris showed you the kitchen. We ate MREs (meals ready to eat), those new plastic packs. We had those at lunch, and we cooked our own meal on the OPs and PCs for breakfast and dinner. You want to talk about some cooks that developed in an isolated apartment. I had some of the best meals in my life on an OP or PC isolated from everybody. When one of these cooks got together and took some meat that probably was the toughest meat that you could buy and just marinated it for about two days and made his own gravy, and ah, I tell you, it just makes my mouth water thinking about some of the dinners I had out in the OPs and CPs. That was one of the ways that they dealt with the stress of being out on an OP and CP with nothing to do. That was the big thing. You could go ahead and do PT in the morning. You could go ahead and you could do training. You could go ahead and you could do squad tactics. We did all of that stuff. We had a battalion commander who tried to organize every hour of every day with something to do. We had correspondence courses. Everybody had correspondence courses. I finished the Advanced Course by correspondence over in the Sinai in about three months. I took all my stuff with me and brought it with me, and I finished it over there. And they still sent me here for the residency. And, Sir, you gave a real good dental class to us last week.

We had books. You wouldn't believe all the paperback books that were available to us over in the Sinai. Not out of the library, but out of people's personal libraries. If they knew there was going to be a lot of time that they were going to be spending on OPs and CPs, then they were going to read. The other thing was, although it is kind of strange, the OPs and CPs themselves tended to be less strenuous, less anxiety producing, less frustrating for the soldiers, than South Camp did. I agree with Col Harris and I'll add that South Camp was a very political place to be. The battalion commander was there. All the command staff were there. Your company commanders were all there if they weren't on one of the sector control areas, and you were being watched constantly. There was no squad integrity or very little squad integrity. You became another person with everybody else. You had the availability of alcohol which you didn't have on the OPs and CPs. Now all personnel in the 101st Airborne Division, we stayed on the OPs and CPs for up to thirty days and then came back into South Camp for ten days. During that ten days, they troops would try to make up for the thirty days of alcohol they didn't drink. So although we had limited numbers of "UCMJ" kinds of actions, 80 percent of "UCMJ" actions were alcohol related. Not alcohol incurred, but alcohol related. Guys that got drunk and went out and beat up on each other. Guys that got drunk and decided they were going to jump the wire and go to the little resort area that was down from us and go swimming down there instead. Guys that got drunk and started to bust up the NCO hall because the PAC Man machine went out on them in the middle of their game. Stuff like that. Those were the little picayune kinds of things that created some big problems in the South Camp. On the OPs and CPs, almost zero. Again why, squad integrity, the closeness of the unit, their peer pressures.

QUESTION: I think we sometimes forget (I sometimes forget) that these guys signed up to do this just like we all signed up to do our thing that we liked. The infantry was signed up to do his thing that he likes. And the thing that he likes is out on patrols and playing that game and it's dumb

for us to look at it and say, "Hey, man, that stuff is terrible. After all it's miserable out there. It's either hot, or it's real cold or it's wet or snowing." Certainly when we have to do things we didn't sign up for, we don't like it.

That's exactly right. There are about two other questions.

QUESTION: when you were talking about seeing people and putting together a file and I was just basing it on the experience of Vietnam and the times in the field now on Reformer. I see a different population also. I see one or two visits of a much more functional population that just stopped by to clear up a problem area vs the people I see in communal health services.

The important thing here is just that clearing up of an incident or informational kind of thing with the soldier before it develops into a problem. What happens is that people go in and they hold on to stuff and they hold onto stuff and pretty soon, they have lost track of what it was that created the incidence to begin with and then it turns into a problem. And what I tried to do, I tried to see as many troops as I could, as often as I could, just so they knew I was there and they could catch me at the side of the trailer. One guy knocked on my door while I was taking a shower and said, "Sir, this is Private So and So, when you get done I want you to come over to my trailer. I want to talk to you for a couple of minutes about something." Those are the kind of things that happened. It didn't take long for the soldiers to begin to identify that even though I was an officer and a "psychologist shrink" to them and the battalion commander tended to reinforce that. As a matter of fact on the living quarters when they listed where people were going to be, you know they couldn't spell psychologist, so they put down "shrink." So the aviation commander was in trailer 104, the "shrink" was in 104, room 13. It was up there for everybody and you had to sort of overcome that.

CAPTAIN GALL COMMENT: We usually talk about it being preventive maintenance and it is surprising how palatable that is. . . The question I wanted to ask was, "What is the research responsibility between combat troops and combat services for the troops ... in terms of quantity and quality and the kinds of difficulty ... did you see that?"

Yeah, very definitely. The combat troops that were there. The difficulties were very basic. They were basic in that they were very normal kinds of anxieties that they experienced very often but they were put down. Ah, they are just this, or they or just that because their peers. We always tell them, "Hey, don't worry about that, everybody does that. You know, that's normal." So what they would do, they would begin to think that, "Well, I guess, everybody has these problems, and it's no big deal." And they wouldn't do anything about them. The service support people tended to be (I hate to label it) a little more insightful, a little more intellectual or something, but they could pinpoint. For example, I had a number of E-6, E-7 medical service personnel who came to me after I was pretty well established in South Camp and had some very specific things they wanted to work on. They said, "I've got six months here, Sir, and there are some things I have really been meaning to do for X number of years and I'd like to do this." I thought it might be

age also. You have to consider that. Part of that may be age. Again, the combat troops, a lot of it is basic kinds of things. Basic anxieties of having to deal with a squad leader that tells you you are going to go burn the excrement this time. Or having to deal with the squad leader that puts you on double guard rotation when he doesn't do that to anybody else. The squad leader is picking on you. I heard that and "my squad leader doesn't like me, he's picking on me." What you get down to is, "What kinds of things have you been doing?" And get him to see that some of his behaviors are prompting some of the behaviors in the squad leader and it is getting out of hand.

I also do a lot of work with the leadership, with the chain of command leadership. Sitting down and talking with them about some of the ways that they can better train, better motivate their soldiers and also how they can better counsel their soldiers without sitting down with the soldiers and saying "OK, it's time for your counselling thing," but doing the kinds of things that I was doing, you just say, "Hey, Tommy, what's going on, you know?" ...(new tape) said, "Hey, you know, it's kind of weird, maybe it is just being here in the Sinai, but my squad leader is really coming around." And that stuff gets back to the battalion commander which is kind of nice.

QUESTION: . . .questions regarding use of hard alcohol. . .

No, that's incorrect. We had hard alcohol. That was for the 82nd. Each increment could pretty much make their own rules and regulations about what was going on. We had both in the officers' and in the NCO clubs, we had hard alcohol.

QUESTION: But at the CPs and the OPs you didn't have any alcohol. And I was wondering that what if, as part of the mission, the command says, "No alcohol." What entertained them?

Well, when you went on your passes, you just drank on your passes. We had pretty frequent passes to Israel, primarily, a lot, going over to Egypt. I think we would have seen made some additional kinds of anxiety reaction problems. There is a possibility that some of the troops would turn to the readily available hashish and things like that because you could get that. The other thing is that the troops would find a way to deal with that because the only way you could prevent total use of alcohol consumption would be to place everything off limits. Because you could get it on the local economy.

The other problem that we had, we had a Class Six store in South Camp. But the Class Six store was open only to the LSU which is the Logistical Support Personnel. Those were the civilians and FORSCOM units that were supporting the maintenance, transportation, logistical kinds of supply things. We also had Dutch MPs in South Camp and they had ready access to it. We had the Italian sailors with ready access to it. We had a ... engineer who had access to it. So it would have been very, very difficult to ...you know, you can say, no hard liquor, that is easy enough to do. To say no liquor at all, I think would have created a very serious problem, morale wise at least. It could be done. I think you are asking for trouble though, and I think that is one of the reasons we didn't do it.

QUESTION: Let me confront you with some of the difficult problems that we had confronted when we our psychologists. For example, if you confronted cases where the soldier who comes to you and shares with you some of his trauma and his problems and you ask him to keep it instead. And yet you know that this is something that you should report to his commander or to his squad leader, you find yourself in kind of a problematical dilemma between being professional and being part of the unit. And you find yourself in situations where you would take it upon yourself some of the responsibilities that actually the squad leader should take upon himself... The kind of officials that we usually dealt with are kind of ethical men professionally.

The answer is "Yes, yes, and very definitely, yes." Especially the later. I think that again, there was, prior to my really pushing to go over that, you know, nobody really saw any of these. As a matter of fact, the year prior to my going over, I called 18th Airborne Command and asked them for permission to go over and they only said, "No," but "Hell, no." So, I began working through my own command to go over. Now as a result of my going over and the kinds of things that we did, the 101st Airborne Division, although we do not have a slot, had mandated that a mental health officer will accompany them whenever they go to the Sinai. They are beginning to develop a program whereby a mental health officer will accompany all deployments. When we deployed to Honduras, for example, we had elements of the 101st Airborne Division that were in Honduras at the same time that we were in the Sinai and the reports that came back are basically the same kind of reports that we get back from the Sinai. Having to deal with family problems that come up, social kinds of situations, anxieties, frustrations, etc. that the leadership was able to deal with down there. They were screaming for us to get a mental health officer down there. That is something else that we are going to begin doing with the 101st is begin deploying a mental health officer when we have any kind of long term deployment situation.

COMMENT: Just two comments, to compare your situation with the one of trying to approach an entire division from the division mental health section. You have to understand you are one mental health officer per battalion which approximates . . . the same things that you have gone through. When are we going to get somebody down at that level, and we could begin to solve problems if we have one per battalion. But the closest thing we get to a mental health officer in a battalion right now is the chaplain.

That's exactly right. I haven't been here for the conference, Sir. Would you identify yourself?

QUESTION: Who me? I'm Reuben Gall from

I've was in Israel when I was over in the Sinai and I was over there prior to that so I'm well aware of the kinds of things you are doing. As a matter of fact when I came back for the second annual conference that you had in Tel Aviv two years ago, I submitted an after actions report up to our channels that recommended among other things that with all the Israeli doctrine about placing mental health officers at the brigade level - and we attempted to do that at the 101st, but again you are talking about manpower. We got it going for about one or two months. What we did, we

split up our mental health team. We have a psychiatrist, a psychologist, and a social worker, and we each attached ourselves to one of about three brigades and developed a mental health team. We developed a health team with chaplains. The problem with getting a mental health officer assigned permanently to the kind of missions that we are talking about in the Sinai is that command says that we are giving up approximately 30 or 40 percent of our mental health team to one battalion, that's too much. They don't want to do that, and that was part of the reluctance. I almost didn't go, we got down to about a week prior to deployment and I almost didn't go because of that. Because the CG asked the Chief of Staff to review that, whether or not it was going to be worth sending 30 percent of his mental health component to the Sinai to cover one battalion. Luckily, he is thankful that we did that because he got some really good responses back and he is going to continue to send those people over. So I think we got some excellent mileage on it.

QUESTION: (unable to understand)

That's right, we just sit in the hospital and drink coffee all day anyway. To respond, if I could take just two minutes, to respond to your question about the veterinarian aspects. We did change most of the names of the dogs, however, there is still one "Shit Head" out there. The other thing is that we did institute, the veterinarian who is located in North Camp did institute a Sinai-wide immunization program. All the dogs while we were over there were immunized. They also discussed the possibility of destroying all "stray dogs." So what we did, if you had a dog on your OP or CP or you wanted a dog on your OP or CP, you had to apply for one through our headquarters. Needless to say, all the stray dogs were picked up and found loving owners, and so we didn't have to destroy any of the animals. But the vet that we had, Rex, I can't think of Rex's last name. He is teaching here at the Academy, or was anyway. He was super as far as support kinds of things out there, and he got the animal control kind of stuff taken care of. It worked out very, very well. It is very true, because all of our troops deploy with a basic load of about a hundred rounds of M-16 ammunition and if you have about fifteen or twenty people on an OP or CP, I wouldn't want to be the one to take the dog away. You know, because you've got some basic infantrymen that are dying to shoot and they will shoot at anything and everything that moves.

The other thing, just to wrap it up, is that training is probably the important byword out there. Although they weren't shooting at anybody, they got a lot of opportunities to shoot at something. We did a lot of marksmanship training. We did a lot of field kind of exercises. When they came back into South Camp after being on the OPs and CPs, they dang well knew ... exercises. They loved it because they were doing what they had been trained to do and what they had come into the Army to do. When they did that, I didn't see them. I didn't see them because they were busy doing what they liked to do and everything was fine and rosy with them. Even if they had ... problems that all was ... because they were doing what they came into the Army to do and that was to be a soldier.

FAMILY SUPPORT PROGRAMS

CPT Alfred Johnson
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My name is Captain Alfred Johnson. I'm the division social worker for the 82nd Airborne Division. In regards to the Sinai I want to talk to you not so much about what happened to the soldiers quartered in the Sinai and what they went through, but what we did for the family members in the rear. You've already heard that most of the problems that were encountered with soldiers in the Sinai usually involved some sort of problem with wife or some sort of family problem. In fact, we found that if the soldier is evacuated from the Sinai, it is usually because of some sort of family problem and not always a death or a serious injury. But if the wife says she is going to leave him, he goes, "That means my commitment. What's more important, my family or my commitment to some government agency that I'm getting paid by. I'm going to go back to home and family." And they lose their commitment and they are ready to go back and cohesion and all that don't mean anything.

With that in mind, I'll give you a little background on how we got to focus on the families. The first thing we did, we came to this workshop. I think from early on, after Gary came to the division and Roy Lewis was the division psychologist. Gary was the division psychiatrist. We came to this workshop, first Combat Stress Workshop, and we heard people like Dr. Manning. We heard from people like Belinky and Marlowe. We started focusing on combat stress issues. One of the things that struck us in the literature that we picked up there, was that the people at risk for combat stress casualties were married folk. We had not much thought about married folk, but when we looked at the division, we found that about fifty to sixty percent of the division were married. And within a three year period, a third of those people were going to have significant problems with their wives. This constitutes a tremendous potential for combat stress problems for us. Losses of commitment, losses of confidence, organizational problems. So we began to say, we had better look at the family problems or the family situation in division and see what we can do to reduce our risk of having stress casualties.

The first thing we did was to see just how we did take care of our families in division. What we found out was that we didn't. None at all. There was nothing at that time. Everything once in a while, there's an officers' wives group, but that is more of a social obligation than something that helps her out. We have ACS and DPCA and stuff like that, Army Community Service. But that is so organizationally and personally distant from people, it's not even effective. It only handles emergent sort of situations. We found, and Marlowe sort of set us onto this when he was doing conversations with Col Plumber who was Chief of Staff at the 82nd at that time, and we kind of saw something that we couldn't have a community any longer. That we don't really have a community any longer. We are fragmented and mobile, especially as a military society. That the families come here and they don't have group with which they associate. I used that routinely when I would brief wives, I would ask them questions, and I would say, "How many people know all your neighbors six doors down on either side? Raise you hand." Amazing You don't really have a

geographic community anymore, it's gone. We have lost our communal support system. That's what kibbutzs were all about, people going back, trying to return to that tribal existence. So we thought, isolation is a fact of life among military families. And what I knew of isolation from work that I had been doing at Ft Hood for the two and a half years previously, the family violence coordinator down there, was that isolation was the highest correlate of dysfunctional behavior. You find me the isolated soldier, you find me the isolated person, and I will show you the person who is going to first dysfunction, physically, mentally, socially. So we thought, what can we do? Well, we are going to try to recreate a community. Small communities throughout the division. Well, Gary, Larry and I looked at our assets. We said, "There are three of us, and there are seventeen thousand people in division, and there are twenty-six battalions. If we are going to do this at a battalion level and we are only going to deal with a battalion for a week, in about a half a year we will get to the last battalion. That's not counting all the stuff that we have to do with screening people and doing all the counselling work and stuff like that. So what happened was, the social worker is usually the guy that gets into the car and goes out to the field, so that is what I did. I got into the car and went out to the field. I began with the chaplains. I found out that there is one chaplain for every battalion and one in a brigade. Now all I had to do was sell chaplains on the idea of doing it for us. A lot of them only wanted to do religious stuff, that's ok, we'll get the ones that like to do family stuff too.

So we are going to create this community. We start selling them on the idea of having the family members in a battalion form an organization, form a community around the fact that they are really all in the same boat. That their husbands could go "bye-bye" at any moment and that they needed each other very much. It is just that they didn't live close to each other. They had to pick up the phone and call each other. So we are going to create a community that exists at the end of the telephone.

Several of the chaplains were very excited about this. Their own programs were flagging and they wanted to make them look good, so they began to grab onto this. Myself, I had to run with the chaplains every Tuesday morning in order to ingratiate myself with them in order to get this accomplished.

Along about six months or seven months after we got this started, the second of the 508th got the word that they were going to go to the Sinai the following January. This was around about February or March and the following January they were going to go to the Sinai. That's nine or ten months lead time. We were presented with an opportunity. Everything was going relatively slowly. You can't get people interested in things when there's no crisis. Now the wives had a crisis. "All of our husbands are going to be gone in six months, and what are we going to do? Who's going to take care of us? Do I have to go home to mother whom I don't want to go home to because I feel like I'm an adult." So the chaplain came up to me, Chaplain Bradford of the second 508th and he said, "How do we put this thing together that you've been talking about for the last couple of months?" We had a couple of 45 minute meetings. We talked about mutual support and that we really shouldn't do things for family members. We need to encourage them to do it for themselves. We should form an organization because we couldn't depend upon natural forces to keep families together.

Now you may call this preventive mental health if you wish, but really what we are doing, we are manipulating social systems here. We are encouraging social help in the breakout as it's better known. So the opportunity presented itself. The chaplain says it's a great idea. He takes it to his wife. He says, "Listen, honey, what we've got to do, we've got to get the battalion wives together because everybody is going to be going to the Sinai." She loves it. She's got nothing else to do at that point in time. She was out of a job. But she was a very competent person, a tremendous organizer. She gets together with the battalion commander's wife and within two weeks they didn't need us anymore. The wives had formed an organization and they planned to take care of themselves when their husbands went to the Sinai. They formed a very powerful organization, what we call a communication and support network, very powerful. They educated themselves about what they thought they needed when their husbands went to the Sinai. They said, "What happens? Do I get my husband's leave and earnings statement when he goes to the Sinai?" They asked that question. They said, "Who do I ask about that?" And they asked it as an organization not as 354 individuals each going up and knocking on the door, one at a time, at some agency. We had connected, that organization, had connected the most experienced people in that organizational community with the least experienced people in that community. It had taken the battalion commander's wife with seventeen years in the service and a tremendous amount of influence and made all of that influence and knowledge available to the PFC's wife who has no knowledge or experience with the system and made her competent. It wasn't that we were helping her, they were helping themselves and that made them feel competent. Something that you can't feel if you go to an agency. So always feel incompetent. So stimulating them to help themselves and they build their organization and they start feeling their oats.

At that point, there are two more factors of what we did in the rear to help reduce stress casualties or losses in the Sinai. We knew that the wives had a strong organization going. They also formed a boundary around this organization and said, "No thank you, we don't want any professionals in here because it's ours. We don't want you running things. We don't even want the appearance that you are running things. We just want your support. That doesn't mean to run, it means to support. So what can you do for me, to support me?" So we said, "Ok, we can do this. We can strengthen the liaison between what we call the rear detachment commander and the family support group. And we can strengthen the relationships between the community agencies that are important to family members and the family members." We are doing social system manipulation. We are not counselling anybody. We are not diagnosing anybody. We are not educating anybody. We are manipulating the social structure of the military community in order to create mental health. An entirely different methodology from what many of you are used to in dealing with combat stress casualties.

I met many times with the rear detachment commander and we did a lot of planning. His name is Patrick . . . a very competent captain, infantry type. Some of you think that captain infantry types are real dumb, have no idea what goes on in the minds of their men, much less their families. This guy was sharp, very sharp and I'll read you some words in a few minutes to show you how sharp he was and how he thought, how an

infantry commander thinks about human problems. "Captain," I said, "how do we get the hospital ACS, Finance, and the legal people to respond to a group of family members?" Now we are getting into division policy or "corps policy." He said, "What we'll do is ask the division commander and the corps commander to make meetings with these wives." The wives drive the system. They determine the agenda and they say to the mental health person or to the social work service person or the ACS person, "Listen, I've got this problem. What can you do for me? It goes into the minutes of this meeting, it goes to the general, can you give me an answer next week?" The answer will also go into the minutes. At that point agencies respond and respond very much to wives. And you are just manipulating social systems.

QUESTION: A question about who loses when social systems are manipulated? It's almost like the early examples of when one mental health professional with one battalion and then you had twenty-five . . . the social system now responding to one group of wives with the general's special interest, with only so many manpower each of these organizations, if they are only responding . . . who are the other losers? Isn't it a zero . . . gain? You only have so many assets and you have just taught people how to make other people more. . .

That's right, except it doesn't happen after their deployment. This is the way we figured it. The commanders asked that question right there. And this is how we sold that particular idea. This is the most needy battalion in your entire division because their husbands are going to be gone for six months. They are the only battalion in the division at this time that is on a real world mission in which casualties count.

QUESTION: After the mission, does this powerful manipulation of the system that these wives have been taught no longer exist? I mean you have taught them all these skills. What happens after the six months are over or two years from now that we have every other battalion knowing how to twist, and you as a social worker no longer have any control over what you do ever?

Isn't that scary that the consumers drive the system at that point? Isn't that scary for us professionals that the consumer is driving the system? That's really serious that they are saying, "I don't want you to tell me this. I don't want you to meet that need, I want you to meet this need."

QUESTION: It can be scary if in fact they are not effectively using the assets. Who determines what an effective use is? Us or them?

QUESTION: Yeah, I saw what were near breakdowns. . . handling counselling out of. . .

The consumer says to me, "I don't want you to talk to me about schizophrenia. I want you to talk to me about checkbooks."

COMMENT: No, I'm talking about, I'm . . . third user and I want you to handle my issues, and you have another group of users who may be asking you to do psychotherapy. And now we have the case of what group of users decides.

What we are saying is about consumption of time. Let me say this about that. When we got into it, we found that we saved a tremendous amount of time and this is how we did it. This effort was a very low cost effort in terms of command time used, in terms of mental health assets used, in terms of hospital time used. WRAIR did the follow-up study. We do have some data on that, I think. But what we found was that actual use of medical stuff, I think, probably declined a bit. Because they began to take care of themselves and depended less upon us to take care of them.

COMMENT: I just want to say that during the Falklands crisis in the . . . community from which the majority of the ship sailed initially, the general practitioners were amazed to discover that their attendance of their daily. . . dropped remarkably because the family support group was being. . .

COMMENT: Yeah, I don't think that occurred so much with the Sinai but it did for Grenada. There was a drop as to what was happening there in the hospital system.

COMMENT: I think in the Sinai what did occur because it was. . . (new tape) I was being hypothetical. When you stated . . . that the most used person actually was the rear detachment commander. He was the one who was responding, keeping the human touch. . .

Let me say this, he sat around and twiddled his thumbs because like I said, the wives had come up with an organization and the organization helped itself. We did workshops instead of counselling wives who had a number of emergencies, four hundred wives there, a number of emergencies, what they did, they had contact people. For every six wives there was one contact person and all the contact people for the company had a company representative. So it was like a mini chain of command. It was a communication chain. "If I had any trouble at all, if I just don't feel like I want to sit in the room at night because the walls are screaming at me and the kids are asleep. I call my contact person and she talks to me. I don't have to call a shrink. I call a contact person." We just recreated a community and some of the institutional ways we used to help people are now taken back to the neighborhood, taken back to the tribe, taken back to the extended family, if you will. So it becomes a tremendous organization. It breaks isolation and creates confidence in a groups' . . .

Here are the results of the thing. And I have some of the things, I'll tell you about the organization thing which was a tremendous amount of discombobulated material. This is a newsletter that was put out entirely by the wives. They found a PFC's wife who had been an associate editor on Newsweek. They had informed themselves through this. Every wife got that. It was mailed to her. This is just one of the newsletters. I'll pass that around for your . . . They gave information to the guys in the Sinai. They got . . . As a result we did not evacuate one soldier from the Sinai having family problems during the six months. . . There was a guy that had family problems. He was evacuated, but it was more because he had personal problems long before that with people in his unit.

I sat on the Child Protection Case Management Team at a time when you half the parental resources of the family have been removed. You ship them off for six months. You expect the statistics for that single parent population left behind to raise in terms of child abuse and child neglect.

group of 400 wives during that entire period.

The wives did a self-report inventory on themselves. How do you think this group did for you? Those sort of things. What they said was, "I met six to twenty-six new friends. I feel great about the group. The newsletter and the phone calls were just absolutely super. I feel good about myself. I feel that the Army cares about me. I will support my husband in his efforts to continue in the Army and to do his job. General Troball relieved General Lindsey. General Lindsey went on up the ladder. He saw the results of this thing in the Sinai. He was so enamored of it that he took this basic concept and he said very softly because he was dealing with commanders, "I would like you to have this thing spread throughout every battalion in the division." And later I will address it and we will talk about Grenada. Grenada came up and showed us how right we were in regards to this issue. And right now, General Lindsey who is the Corps commander has stated to the officers' wives, "I want every battalion to have a family support group." Because of the results of this. That's a brief overview of what we did to reduce stress casualties. The results of it and the social implications of it we will talk about, but that's generally what we did to reduce stress casualties by working with elements in the rear during the Sinai deployment. Any questions at all?

QUESTION: Aren't Army Community Services able to organize this and handle it effectively?

Not really. Here's what we found out. Army Community Services is a very good organization for gathering resources. But let me tell you when you have a major deployment and you have 17,000 family members, neither Army Community Services nor any other institution in the world has the resources it's going to take to even handle some of the problems that people are going to bring to it. It's a welfare system. If we can't help them help themselves, we haven't got the resources to give them all that they need.

COMMENT: Oh yeah . . . which are relatively scarce resources. You've got more in ACS personnel. Could they have organized these family support groups?

Possibly in the future. The problem with ACS doing that is this. I wear an 82nd Division uniform. I'm part of the family when I go down to these battalions. I jump with their husbands. I share the same things. ACS at Ft Bragg, because Ft Bragg is a huge post with six or seven major commands on it, is an organization that is very, very distant. They don't know what is going on and I don't know that they can respond to it. They had the same question that they had. We had a unit going to the Sinai, a battalion going to the Sinai and they said, "Well, that's only battalion on post. We got lots of problems here." At that point it meant that this battalion's wives weren't going to get served well by ACS. You see, because that is only one of the little problems and I ain't got time for that.

QUESTION: Wouldn't you agree, I want to clarify one point, you know you were very instrumental in getting that first one started, but it is now a mental health program and so it doesn't take a mental health person being there to get one of these groups started. They just start and nine times

out ten they start because of the interest of the command.

Commanders support it, a couple of wives get into it and see what is for them and the thing takes off. No, there's no need for a mental health worker doing it. In fact, that's the good thing about it. I've found that most of the groups are just springing up, in fact I'm finding groups that are springing up in corps that had the exact same organizational model but I never talked to those groups. So what happens is that it just spreads by word of grass roots and the wives can spread the thing. We only help them network their organization and build their organization at higher levels, and consult with them when they want that. It's very cost efficient in that way. It demands very little time.

BATTLE FATIGUE: EL SALVADOR

LTC Brian H. Chermol, Ph.D.
Medical MTT (El Salvador)

History.

The first recorded inhabitants of El Salvador were the Mayan Indians, whose descendants and structures still occupy the land. The arrival of the Spaniards in 1524 brought European culture and the Spanish language to El Salvador. By the early 1800's - when El Salvador and most of Central America gained independence - a social structure similar to that found in Europe in earlier times existed. A relatively small number of landowners controlled most of the tillable land, worked by large numbers of campesinos who existed at the subsistence level. In the 1930's, stirred by Communist rhetoric from Europe, the campesinos began to rebel against the aristocracy. In one of the more notable confrontations, tens of thousands of campesinos and indians were killed - among them Farabundo Marti, from whom the insurgent force now takes its name. The first democratic elections were held in 1972; however, the elected president - Napoleon Duarte was soon toppled from power by the ultra-right elements of the Salvadoran Armed Forces (ESAF). A second attempt to elect a popularly supported government was again defeated in 1979 by the Salvadoran military. Believing that democracy could never be achieved through peaceful means, students, Communists and other factions of society began guerrilla operations against the government. This action was encouraged and supported by the new Communist regime in Nicaragua, which also served as a training and support base. As law and order diminished, as even the Catholic Church became radicalized and split, as the legal system ceased to function, as kidnapping and assassinations became common place, the rightist "death squads" began to operate. While directed primarily against supposed Communists and leftists, they also were used as instruments of personal revenge and as vigilantes. The election of Napoleon Durate as president in 1984 was the initial step in reversing the course of tradition and history in El Salvador. During his first six months in office, efforts have been made to restructure the legal system, death squad activity has declined to its lowest level in four years, and the nation is moving toward democratic government.

Country.

The country of El Salvador is the size of Massachusetts, about 8,000 square miles. It consists of both hot coastal plains and tall volcanic mountain ranges. The temperature is dictated by both altitude and the seasons. The rainy season (April - October) is typically cooler, but more humid, than the other months of the year. The major cash crops are coffee, corn, cotton, and sugar cane. A depressed world market for their commodities, and the efforts of guerrillas to disrupt cultivations and harvest have ravaged the agricultural economy of the country. El Salvador's geographical location places it in the center of Central America, less than a thousand miles from Texas. In fact, from San Antonio, it is less distance to El Salvador than to cities on the coasts of the United States.

People.

The population of El Salvador is five million. The population of the capital, San Salvador, has swollen to nearly one million in the past four years. Approximately ten percent of the citizens of El Salvador are now refugees, living in or near the five principal cities. The socioeconomic structure is best depicted as a pyramid, with a few wealthy families at the top, a small middle class, and many poor forming the base. This distinction between the wealthier city dwellers and the campesinos is evident in their educational levels, speech patterns, health and diet, political beliefs, religious observances, and opportunities for advancement. The upper class in El Salvador has declined in size since 1979 because of the land reform and the decision of many of these families to relocate to the United States. The typical upper class home is protected by private guards and both the house and the family are shielded from the general public. In contrast the typical campesino resides in a home made of sticks and mud with a patched tin roof. In daily life, Salvadorans tend to be polite, friendly, restrained and even humble. However, alcohol is a common escape and can often release pent up anger or frustration with violent results. The "macho" image is important and the "double" sexual standard is part of this cultural concept. Divorce and separation are common, usually to the detriment of the wife and children.

Civilian Health System.

Most citizens can obtain adequate medical care. Many workers are members of the Social Security program, which provides medical care, death benefits, unemployment insurance, and retirement income. For the wealthy, modern, well staffed private hospitals are available in San Salvador. For the poorer campesinos, the Ministry of Health (MOH) maintains a system of hospitals and clinics which provide free medical care. The MOH also sponsors disease eradication programs throughout El Salvador. Both private and public mental health facilities are minimal. The private hospital is small and modern psychoactive drugs are often not available. The public institution has a shortage of drugs, staff and programs. Soldiers requiring hospitalization for emotional disorders are admitted to this public hospital. While there are few psychiatrists in the country, some psychologists and a growing number of social workers are available; the latter two professions being staffed primarily by females.

Military Medical System.

Prior to the start of the conflict in 1979, there was no field medical service. The few medical NCOs in the military were assigned to the 40 garrisons and served primarily as administrators for the contract surgeons and dentists. There were no medics with field units, no medical evacuation system, inadequate medical supplies, an obsolete hospital, and insufficient combat surgical capabilities. Outpatient care for the ESAB force that grew from 12,000 to 40,000 soldiers in four years was nearly non-existent; mortality rates (KIA/BC) exceeded 40%. During the last year, U.S. training, money and logistical assistance have helped the ESAB structure manage and equip a field medical force. A national Medical Battalion has 1,500 medics to support combat operations. There is a four aircraft medical evacuation system; there is a viable rehabilitation program for disabled soldiers and a small field hospital opened in 1984 (followed by

the opening of a new national Military Hospital in late 1985). As the medical system begins to function, mortality is slowly dropping, fewer limbs are being lost, and the Salvadoran soldier has gained confidence in his medical support. As presently configured, every garrison has a clinic, ambulance, NCO medical staff and a contract physician and dentist. Each infantry company has three or more combat medics attached. All medics are school trained and all soldiers receive first aid training during BCT. A surgical suite has been opened in the Eastern half of El Salvador - mobile surgical teams can be dispatched from that location and air medical evacuation helicopters are field sited there.

Military Mental Health Service.

All mental health/psychological services in the ESAF come under the D-V section of the General Staff or under the Military Hospital. The D-V has three person teams at the larger garrisons. The psychologist functions as the team leader and therapist; the social worker conducts motivational classes, group education, and post battle discussions; the psychological warfare technician conducts loudspeaker and leaflet campaigns to motivate ESAF soldiers and demoralize the enemy. All recruits are tested and interviewed by D-V personnel and all recovered POWs are screened. The Military Hospital has a small mental health section consisting of three psychiatrists, two psychologists, and three social workers - all function primarily as therapists. The emphasis in the hospital is on motivating the physically disabled. Soldiers with severe psychological disorders are transferred to the civilian psychiatric institution. Throughout the system, there is little treatment or education provided to families; most treatment is done by female therapists and only minimal amounts of medication are utilized. In the Military Hospital, obstacles to patient programs include: lack of a positive ward atmosphere, drug and alcohol abuse, boredom and inactivity, limited physical/occupational rehab facilities, use of medication to pacify patients, the "macho" image which interferes with group therapy, and the "maternal" style of therapists and other attendants.

Sources of Combat Stress.

As in all military conflicts, the primary causes of battle fatigue are fear and fatigue. The soldier in El Salvador fears death, mutilation, loss of arms or legs, poisoning and torture. A soldier who is severely wounded has little opportunity to receive "plastic surgery" if disfigured, prosthetic devices can take up to a year to fabricate and there is only a small pension for soldiers unable to work. Thus, the Salvadoran soldier realizes that a severe wound could lead to years of unproductivity with little compensation. The use of boobytraps, ambushes and sudden, but brief rocket/mortar attacks increase the level of anticipatory fear since the advantage lies with the enemy and there is little that the individual soldier can do to prevent these forms of attack.

Fatigue is produced by operations that extend over weeks; the lack of sleep; the poor nutrition and lack of protein in the field diet; the high incidence of malaria, diarrhea and other illnesses; the constant heat; and the use of alcohol - which is a depressant.

Other sources of stress include concerns about the safety of one's family. Retaliation by the guerrillas is a major source of anxiety. The fact that the soldier may be fighting against family members serving (forced or voluntary) with the guerrillas is another source of concern. The verbal and physical abuse of the soldiers, unsanitary messing and living conditions, distrust of unit members (units have been infiltrated by rebel agents), and the general harshness of life at the bottom of the rank structure are all sources of stress.

Added to this are the typical adolescent maturation problems. Most of the lower ranking soldiers are in their late teens. Thus, their entry into the Army was often their first separation from home. The desire for protection and dependency is off-set by the desire to achieve independence as an adult. Unfortunately, the role models selected often are not worthy of that status or exceed the abilities of the young soldiers.

Stress is also produced by the rebel radio stations (e.g., Radio Marti) and propaganda leaflets which suggest that a Communist victory is inevitable. While the soldier may not believe that the government is in immediate danger, he may come to believe that this will be a protracted struggle which will necessitate sacrifices by him for many years. This can lead to a sense of frustration, or eventual hopelessness.

Signs and Symptoms.

The most common condition seen is mild battle fatigue. It is characterized by: mild anxiety and sleep disturbances, exaggerated startle response, hyper-sensitivity, feelings of persecution, hopelessness, loss of appetite, and mild despondency.

Among more senior personnel who have been in combat units for the past 4-5 years, "Old Sergeant's Syndrome" is starting to be manifested. It is characterized by: physical "burn out," a lack of emotion and slowness in moving, thinking and responding. It is the result of many months or years in combat in responsible positions, often separated from one's family.

Other conditions related to stress include: AWOL, alcohol and drug abuse, spouse/child abuse, self-inflicted wounds, and the exacerbation or recurrence of pre-existing psychiatric disorders.

Treatment.

Mild battle fatigue is usually not treated by mental health personnel because: it is common; responds to self-medication (alcohol, drugs, marijuana); or is often minimized by leave, rest and nutritious meals. Also, seeking professional assistance is considered a sign of weakness - it is not "macho." Soldiers who desire or require assistance are sent to see the mental health professional (usually a psychologist) at the nearest garrison. Treatment consists of sleep (usually without medication), counselling (to include abreaction/ventilation) and, occasionally, mild tranquilizers.

"Burn Out" is usually treated by transfer to administrative duties or to service in a less dangerous sector of the country. Because higher ranking officers can be in danger anywhere in the country, they may be sent

to a foreign country as an attache.

Battle Fatigue cases that don't respond to brief treatment at a garrison or the national Military Hospital (which has no psychiatric ward), are transferred to the public psychiatric hospital and discharged. Personnel with chronic but less severe, conditions are discharged and returned to their home towns. There is little or no compensation for soldiers receiving a psychiatric discharge, so the system is rarely abused.

Implication for U.S. Combat Operations.

If U.S. forces are committed to the Caribbean Basin region, the causes and symptoms of battle fatigue would be similar to those seen in the Pacific in WW II and in Vietnam. The incidence rate would be much lower than that seen in World War II because the fighting would not involve the fanaticism characteristic of the Japanese soldiers in that conflict.

U.S. military personnel would experience fatigue from the high heat and humidity; illness (particularly gastrointestinal disorders) from the water and unsanitary messing and environmental conditions; frustration from the elusive nature of insurgency combat, the social isolation and the mistrust of local national and allied soldiers; and the "culture shock" initially experienced by young soldiers when they arrive in a foreign country. The best model for BF predictions would probably be the conflict in Vietnam.

Conclusion.

The ESAF is experiencing varying degrees of BF today. While the incidence rate is low, it will increase as the war continues. The culture appears to serve as a deterrent to high psychiatric casualty rates but is also a deterrent to early treatment and rapid recovery particularly for hospitalized patients). Military forces of the U.S. which may operate in the Caribbean Basin region would also experience BF, but the rates would be low and the causes, symptoms and incidences would be similar to that observed in Vietnam in the 1960's.

ANNEX

HUMANITARIAN MEDICAL MOBILE TRAINING TEAM (EL SALVADOR)

ISSUE: To acquaint the U. S. Military Group (El Salvador) with the accomplishments and goals of the Medical MTT.

FACTS:

1. During the period 1979-1983, the Armed Forces of El Salvador (ESAF) increased from 12,000 to 38,000. Large scale combat operations to seek out and destroy insurgent units and their bases resulted in higher casualty rates. This increase prompted the medical system to go from a peacetime stance of limited garrison treatment to a wartime posture emphasizing field medical treatment, rapid evacuation, and comprehensive care. By 1983, however, the dead to wounded ratio was 2:3 (40% of all casualties died) due to a lack of trained medical personnel in field units, the lack of a dedicated evacuation system, and the lack of a field surgical capability. Simultaneously, the Military Hospital increased its military physician staff from two to eight, while experiencing an occupancy rate 345% greater than its planned capacity.
2. U.S. support to improve these conditions began in mid-1983. From June 1983 to July 1984, members of the Medical MTT trained 748 combat medics, 72 medical service officers, 30 MEDEVAC aidmen, 46 intensive care nurses, and eight biomedical technicians; improved the medical supply system; assisted in organizing a field medical service (medical battalion); expedited the delivery of four MEDEVAC helicopters and 10 ambulances; provided field sanitation guidance; facilitated financing for the completion of the new Military Hospital; and participated in structuring a unified military medical system.
3. Current advisory and training activities include: training basic combat medics, senior combat medic NCOs, dental technicians, biomedical repair technicians, mental health/rehabilitation personnel, and intensive care nurses; coordinating the delivery of donated medical supplies, texts and journals; resupplying field medical elements; expanding the medical records, medical reporting and individual identification systems; improving malaria prophylaxis; assisting in the acquisition of rehabilitation equipment, additional ground ambulances, and modern patient care equipment; continuing expansion of the medical facility in San Miguel; providing guidance during the establishment of a unified medical system; and providing technical consultation during construction of the new Military Hospital.
4. By mid-1985, sufficient combat medics will be trained, rapid ground and air evacuation will be available, and surgical capabilities will exist in close proximity to battle areas; thus, reductions in mortality rates should occur.
5. Long range projects include: occupancy of the new Military Hospital, expansion of the physical rehabilitation program, and legislative changes to insure adequate career progression/compensation of medical personnel and to encourage recruitment of civilian physicians and dentists.

6. Continued progress is dependent upon three factors: command support for unit medical personnel and their programs, completion of the new Military Hospital, full staffing of the national Medical Battalion, establishment of a major medical facility at San Miguel, and continued financial support for the ESAF medical service.

THE ISRAELI FORCES EXPERIENCES IN LEBANON

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The Yom Kippur War was the first time that the Israeli forces have confronted the sole phenomena of combat reactions or psychiatric casualties. Until that war previous Israeli conflicts had few if any psychiatric casualties; Israeli medical services and the few psychological services that we had had never dealt with psychiatric casualties. I must admit to you that I had never heard about the FIE concept or IMPRESS despite being a military psychologist until the 1973 war. This war was the first time that we confronted these casualties in massive numbers. It forced us to reorganize our services to handle future possibilities of that sort. Thus, the Yom Kippur War was a turning point in terms of our medical and psychological services in the military. We began to train our medical servicemen with regard to psychiatric casualties. We started to organize our facilities to provide the right treatment and we also established some that didn't exist before and that was called field psychology. We established a whole network of psychologists stationed in the units at the brigade and division levels. These psychologists were responsible to do what we call here mostly preventive actions: morale services, commanders' consultation, dealing with unit cohesion, unit morale, combat readiness, and leadership. We established a network where we had for each division a team of four to six of these psychologists. (By the way, we use only officers with a masters or doctorate in psychology as field psychologists. Most of them have also had combat experience prior to becoming field psychologists as we found that experience to be very essential.) They were broken down into brigade teams. However, we usually try to keep them working in pairs, that is two psychologists for each unit, for reasons that I will come to later. This organization of field psychologists was parallel to another organization within the medical corps, which was called Mental Health Services and was comprised of psychiatrists, clinical psychologists and social workers. They did the mental health work in peace time and most of the treatment of psychiatric casualties during wartime; but then this was the time when they teamed together with the field psychologists in treating those psychiatric casualties.

The traditional approach that we used with regard to neuropsychiatric casualties was the PIE (or the IPE in this case) or the IMPRESS which we sometimes refer to as the Salmon Principle. But, as I've said, until the Yom Kippur War, we were not even familiar with all these concepts. So it was only after the Yom Kippur War that organizational changes and all kinds of preparations were applied. And only in the 1982 War in Lebanon were these tested for the first time.

Let me say a word of caution before I present you with some of the data concerning these two wars. The figures, tables, and numbers all sound as if they are definitely accurate. Well, they are not. I am not sure about most of the numbers here and I don't think I can give you more accurate ones. One of the problems is with the definitions and diagnoses of neuropsychiatric cases. However, the following is a general perspective of what we had in the Lebanon War of 1982. The total number of IDF soldiers killed in action between June and December 1982 was 465. That is

a high toll for the Israeli military even though it is not as large a number as in the Yom Kippur War where we had about 3,000 killed. In Lebanon we also had 2,600 wounded in action, and in addition, we had about 600 psychiatric casualties. This latter figure includes wounded with psychiatric symptoms. That generates a ratio of 23:100 or about 18.7% of the total WIA. As a comparison, in the Yom Kippur War we had about 30:100 which is about 23% (see Table 1). [Note: Most of the following tables are included in WRAIR Report NP-83-4: G. Belenky, C. Tyner, & F. Sodetz, 1983, Israeli Battle Shock Casualties: 1973 and 1982, Walter Reed Army Institute of Research, Washington, D.C.]

Let me say a few words about the Lebanon War for those of you who don't recall the exact details. In some ways it was a different war than what we were used to in all the history of wars in Israel. For one thing it was longer than the usual Israeli wars which are very brief. However, in some other aspects, it was much easier. It was only on one frontier whereas the previous wars were on more than one, usually two or three frontiers. It was initiated by the Israelis and thus it didn't take us by surprise like the Yom Kippur War. It was not against very massive armed forces but mainly against PLO semi-military groups stationed in Lebanon. However, it also included some massive confrontations with regular Syrian forces in the Bekka Valley area. Although the war was fought in Lebanon the Lebanese were not our enemy but rather the PLO, who made good use of covering behind civilians, etc. With the Israeli's moral standards, I can say that that created serious problems. Basically the operation was along three main axes. The western axis along the coastal plain presented mainly the problem of executing military operations in dense urban areas since there are many small cities along the coast. It was like running a combat action along an area like New Jersey. The center column or axis was predominantly characterized by mountains, steep mountains, broken terrain, steep and windy roads. The third axis was a classic armor battle because that focused against the Syrians with their armor including P-72's and the most recent armor and anti-tanks weapon systems. So these were the characteristics of the war in Lebanon.

Let's consider this 23:100 ratio as the basis and see how it can be broken down by some other characteristics. First we will try to break it down by age (see Table 2). Although Israeli conscripts are between the ages of 18 and 21, it is the reserve units which comprise the core of the Israeli forces. As you can see, the conscripts showed the lowest rate of psychiatric casualties. It was the 26 to 30 age group, which showed the highest rate and thus it seems that older soldiers, perhaps married with family and children, etc. are more vulnerable to psychiatric breakdown than the younger ones.

No personality characteristics were found as predictors of psychiatric breakdown. However, some of the other predictors were low education (that is, lower educated soldiers were more prone to psychiatric breakdown), low motivation and low performance scores. Reservists were more vulnerable than conscripts; support units more than line units; low ranks as opposed to high ranks. We also looked at the "well-being" background variables of the individuals. Of a sample of soldiers who suffered battle shock during the 1973 war 80 percent of the cases had some prior personal or family stresses or problems.

Fifty percent of them had pregnant wives while they were on active

duty, or wives who had given birth within a year preceding the war. Twenty-three percent of the cases had a recent death in the immediate family. Other relevant stresses were: recent marriage, mortgage problems, sick friends, serious personal loss, and things like that. We concluded, then, that all these variables may be related to psychiatric breakdown in combat.

When we tried to break percentages of psychiatric casualties down, not by individual but by unit variables, we found the following pattern (see Table 3). While almost 90 percent of the total physical casualties in the Yom Kippur War came from fighting units and only 10 percent from support units, when it comes to psychiatric casualties, only 70 percent came from the fighting units and about 30 percent came from the support units. In other words, if you are in a fighting unit you have greater chances of being wounded; but if you are in a logistic unit there are greater chances that you will be a psychiatric casualty rather than a physical casualty. Hence the total rate of 30 to 100 is comprised in total numbers mainly from the fighting units, but in terms of ratios the main contribution comes from the support units.

Another set of observations regarding the psychosocial experiences of the 1973 casualties was derived from a sample group comprised of 74 psychiatric casualties (see Table 4). We found that 76 percent of them experienced loneliness during combat. They felt they were isolated, not part of the unit, and things like that. Part of that is the result of the special circumstances in the Yom Kippur War. Normally our units are comprised of stable personnel, that is each unit has the same personnel down to the tank crew level. Thus the same four guys may be in the same tank for many years together if they are in the reserve units. Some have been together for several wars within the same crew. The same thing is true for squads, platoons and companies. However, in the Yom Kippur War because of the surprise attack, individuals were mobilized as fast as they came. Whenever they had four guys who could comprise a tank crew, they were sent to the frontier. As a result you had teams who didn't know each other even though they were already fighting together on the battlefield. When we later looked at the casualty distribution we found that among these teams the rate of casualties was much higher than among the crews who knew each other very well and had been fighting together for many years. The experience of loneliness or isolation was a high predictor here. Exhaustion, on the other hand, was experienced by both those psychiatric casualties and by a control group (which was comprised of combat soldiers who were physically, but not psychiatrically wounded). They experienced exhaustion to an even higher degree.

An interesting fact is that among the psychiatric casualties, 42 percent showed no trust toward their immediate commander. Such a response was almost non-existent among the other group. Low opinion of one's own military knowledge, lack of self confidence of oneself as a soldier were relatively frequent among the neuropsychiatric casualty group but hardly existed in the control group.

And finally with regard to morale, a striking 72 percent of the psychiatric casualties group reported low morale in their respective units. None of the control group reported low morale. The reverse held for high morale. Thus, factors such as confidence in commanders, confidence in

oneself, high morale, and group cohesion were among the most crucial factors that contributed to the psychiatric casualties, as compared to the control group.

Next, we tried to draw some comparisons between two groups of Israeli combatants -- the psychiatric casualties group and those who were awarded for bravery or heroism (after the Yom Kippur War again). We had a total of 290 citations after the 1973 War, all carefully selected for conducting an extraordinary heroic act in combat (see Table 5). The comparisons revealed some striking contradictions: the "heroes" were characterized by high unit cohesion while the neuropsychiatric casualties were characterized by low unit cohesion. The medalists had good and respected leaders as they reported. The ones who broke down had poor leadership or at least they didn't have high trust in their leadership. The medalists had high confidence in their own military skills while the casualties had low confidence. And finally, the medalists had relatively more stable, more solid, family background, while the neuropsychiatric casualties showed some turbulence and troubles in the families. So we may consider these two groups as kind of two extreme poles along a continuum of combat-related variables.

In the Lebanon war we looked at the nature of battle which produced psychiatric casualties. Although this is not a well controlled study, I'll use it as an example. Four full combat battalions were randomly chosen and characterized according to five dimensions (see Table 6). These were first, the pre-combat factors (what was the enemy location, what was the mission, were there any false alarms before that, what was the level of training); the second dimension was the kind of battle (i.e., mostly artillery or air attack, ambush or minefield, etc.); then the kind of support they received during battle; then the level of enemy resistance; and finally the amount of trust or autonomy received from higher echelon. Then, we rank ordered the battalions along these five dimensions, so that the one ranked first was the one with the most severe battle, the least support, etc. When you look at the physical casualties, you see that the numbers really go according to these rankings. The toughest battle had the highest physical casualty toll and so did the psychiatric casualties. So we see again that when we talk about the general ratio of 30 to 100, it is comprised of different units who have gone to different battlefields or different intensity of battlefields. Some ratios can get as high as 86 to 100 while others can have 0 psychiatric casualties. Thus we have to be very cautious when we talk about percentage of psychiatric casualties. They can vary along a very wide range of variables. Our knowledge from World War II (see Table 7) is, indeed, relevant here. It shows that the psychiatric casualties were always correlated with the non-psychiatric casualties, the wounded in battle, which in turn reflects the intensity of the battlefield mortality.

Returning to the Lebanon study, we listed all the symptoms that we had with all our 1982 casualties. While we found the normal range of symptoms always found in the previous wars (see Table 8), anxiety and depressive affect were among the leading symptoms reported, followed by sleep disturbances, fear, social estrangement, conversion reactions, and crying. Among the least common symptoms were bursts of aggressive behavior and memory impairment.

Based on the PIE Concept or IMPRESS we had prepared for the Lebanon War, we established three echelons, or levels, of treatment. The first was on the battlefield. Here the mental health people were stationed in what we call the Advanced Medical Battalion (AMB) which is a battalion medical center that services the whole division. It is usually stationed within five to ten kilometers from the front lines, sometimes even closer than that, so it is part of the front line. The second echelon was a rear military installation placed in a military camp in the northern part of Israel. Even though it was not in the battle zone, it was still not too far from the border. With Israel being such a small country, you could still see the jets and helicopters and even hear the noises of the battlefield from there. It was a military camp and the impaired soldiers as well as the other personnel were all wearing their uniforms. They were carrying their rifles all the time. That was the second echelon. The third echelon was a rear treatment installation which dealt with all those who didn't manage to be recovered in the first two places.

When we examine the results of the treatment at the first two echelons, we see something that could be basically expected (see Table 9). Those psychiatric casualties who have been treated at the first echelon for pure battle stress had a return rate of 66 percent as compared to 34 percent who didn't return to their units. Most of the returns were achieved within 72 hours. Now this 66 percent is a total taken from many AMB's. There were some teams who were very efficient and managed to get as high as 95 or almost 100 percent returned back to their units. Some were less successful, but the average number is 66 percent. By comparison the second echelon had a rate of return of about 46 percent as opposed to 54 percent who did not return. Here we are talking about a time range of several days to two weeks from breakdown. So we may talk about a total of about 75 to 80 percent who have been returned to their units while the war was still going on. You may also note some differences in whether those breakdowns happened during the battlefield or sometime later. That was a phenomena that we found both in Lebanon and previously in the Yom Kippur War. We'll have a soldier who functioned well on the battlefield but then on his first leave home he broke down there with his family. Surprisingly in some cases, he only recovered when he was sent back to the unit. There, among his comrades and his friends where he had spent all the battle hours is where he felt easier, better and more relief.

As to the treatment itself it was comprised of some physical food, sleep, a change of clothes, lots of rest, along with some therapeutic activities with the psychologist or social worker. However, we put a very strong emphasis on the relationship or contact with the unit. Even during the first 24 hours we would require the original unit to send a representative from the unit to visit this soldier in that advanced treatment place. The unit representative was important, especially if it was one of the commanders (either a platoon or squad leader). The units always did this and it had a very strong impact. Just a short visit, saying, "How are you doing?" and "We are waiting for you. Come back as soon as you can." That was the expectancy, the E of the PIE concept. The other thing we did when the guy was ready to go back to his unit, was to contact the unit and ask them to send some of their vehicles with some of their men to this treatment station to take their unit member back to the unit. So he wasn't just sent over there; rather he was brought back by his

peers or by one of his leaders. This was also very effective. I believe these factors contributed a lot to that 75 to 80 percent of returning, and not just the treatment itself.

As I mentioned earlier, we couldn't find any personality variables related to breakdowns. We did find, however, some variables that were related to recovery. Factors positively correlated with return to duty following psychiatric breakdown (see Table 10) included being diagnosed just as soon as possible, being diagnosed correctly as suffering from battle shock and not from something else, being treated at a forward facility, being a combat soldier, and being young. Factors showing no correlation with return to duty were: prewar medical history; country of origin (eastern or European); the performance predictor scores, the intelligence scores or the education level (all pre-induction parameters); and the type of service in terms of regular or reserve. So the main predictors of recovery (though not breakdown) were: age, being combat or noncombat, where the treatment was taken, and the accuracy of the diagnosis.

The third echelon was called the Combat Fitness Retraining Unit (CFRU). It was a treatment installation which we specifically established to treat those guys who didn't recover, in either the forward treatment (first echelon) or in the military installation (second echelon). This CFRU was in the center of Israel near Tel Aviv in a sport institute called the Wingate Center. Even though it was a civilian facility, it turned into a military installation in the sense that everyone there wore uniforms, had their weapons with them and had a daily schedule like a military installation. The treatment characteristic of that place can be called "walking and talking." It was comprised of physical activities such as walking, jogging, playing basketball, soccer, and sessions of both individual and group therapy which were mainly abreactive in nature. The emphasis was on keeping them busy, active and abreactive at the same time; this seemed to produce the results (see Table 11). We had about 60 patients there which comprised 10 percent of the total psychiatric casualties from Lebanon, equally divided between reservists and regulars. Most were from combat units and the average length of stay was 26 days. A very few of them received some pharmacological treatment, mostly antidepressants. Of these 60 third echelon cases, 43 percent returned to their original unit, with the remaining 57 percent reassigned to noncombat units. None of them were sent back to Lebanon.

I believe I will stop here in order to take time to answer questions.

Q: How many mental health officers do you have for how many troops?

A: I cannot give you an accurate total number, but at the division level we have that team of four to six field psychologists and in addition have a team of about six mental health specialists plus either one or two psychiatrists. So it is a total of about twelve mental health or behavioral science professionals for a division.

Q: What kind of training is required for these field psychologists?

A: This is one of the most important points we have to make. Earlier I heard Jim Stokes' presentation in which he stressed an equal number of enlisted men and officers among the mental health specialists. For me I have to admit that it is a little hard to buy. We consider those field psychologists and mental health professionals as being experts in their field, which means at least a master's degree or Ph.D. Secondly, these people have to deal with either battalion commanders, brigade commanders, or division commanders in all their consultations, feedback sessions, etc. I cannot see an enlisted man doing that effectively.

Q: What are the ranks of your field psychologists?

Q: Though some are Lieutenants usually they would be Captains or Majors.

Q: And commanders are what ranks?

A: Commanders will range from Lieutenant Colonels to Brigadier Generals depending on the unit level. Again, this is why we feel the psychologists should be officers in order to be able to deal with the commanders. The field psychologists are also expected to have previous battle or combat experience. For a while we had a group of field psychologists who were from the academic reserves. These people go first through school, complete their psychological studies and then are recruited. Thus none of them had combat experience. Some of them did very poorly as field psychologists so we decided to change it. Now most of our field psychologists are first soldiers, preferably officers in combat units, then go to school to become field psychologists. However, another important factor, I believe, is personality. I think that when you assign someone to deal with commanders on one hand and to treat psychiatric breakdowns on the other hand, to work on a team, and to cope with extremely stressful situations you need some screening, some sort of selection. You can't take just anyone. We found that those who were more effective as "therapists" were also the ones who coped better with their own stresses during battle. For some it was very difficult to cope with their own stresses. Remember that they were in relatively advanced positions, they saw not only the psychiatric casualties, they also saw everyone who was seriously wounded. Sometimes they were under fire themselves. Thus they needed a lot of support themselves. That support came first of all from the fact that they always worked in teams. They may go into different battalions alone, but they will team together every hour or so just to brief each other and to get support. The other helpful thing was that every night, or almost every night, they would again team together as a division team to brief each other and work through their own distresses. Since I personally spent all that period of time in Lebanon travelling from one unit to another, I often found myself talking to these teams where I became the therapist and they became the patients because they just needed their own ab reactions. As I said earlier, the ones who did the best jobs were the ones who had previous combat experience, had the right personality, and first managed their own stresses very well before they were able to provide support to the others.

Q: Since the Lebanon campaign has been progressing for a longer time than anticipated, have there been any differential patterns or time differences in terms of onset of symptoms for stress casualties?

A: Not really. The main bulk of these psychiatric casualties occurred in the first five days which were the main fighting days. Then we had a cease-fire period and then it started again around the Beirut area. That's where we again had some new psychiatric casualties. So we had two peaks which had to do with the intensity of the combat. I don't know of any differences regarding the symptoms of these two "waves."

Q: That had to do with acute battle reactions. How about delayed stress reactions?

A: There were several late reactions which I wouldn't label psychiatric casualties or combat reactions or anything like that. We started to see some symptoms of what one may call combat fatigue during the months after the main battles, and we can see those even these days. The Israeli troops in Lebanon are under constant threat of booby traps and ambushes and guerilla attacks, so you get a continuous burnout. Yesterday in the El Salvador presentation we heard about different types of psychiatric reactions, and it reminded me a lot of what we get right now in Lebanon. These symptoms are completely different from the combat reactions that we discussed earlier, and I believe they require command rather than psychiatric consideration.

Q: From your experience, what's the percentage or do you have percentages of medical personnel who actually suffer combat stress during the battle?

A: In terms of actual psychiatric breakdown in the traditional diagnostic sense there were none. However, in terms of fatigue, exhaustion, burnout, etc., there were a few, and they recovered and did better later. But there was not a single case of a real breakdown. In fact, we had very few breakdowns among officers. Of the 600 cases, I think there were only one or two percent, less than ten cases of officers with breakdowns.

Q: In the Israeli forces, do the mental health professionals report to the regular medical line structure, or do you report directly to the commander in the field?

A: We have two parallel organizations. The mental health professionals report to the medical chain of command. For example, the mental health team in a division reports to the division Chief Surgeon. The field psychologists, on the other hand, report directly to the brigade or division commander. They are coordinated by the adjutant (the G-1), but usually they will report anything that has to do with the unit morale, etc. directly to the commander.

Q: I would like to make an observation, then ask a question. The observation stems from the question: when is a casualty not a casualty? And the answer is: when you don't count it. What if you go out in the field and talk with the troops? They are not designated as casualties but you see precisely the same symptoms that you see when you're sitting in your medical station and the guy comes in and tells you the same thing.

Then we start counting them and you get your statistics. Then the

commander looks bad and he gets mad at you. Whether or not the guy was present for duty the next morning apparently was not the issue. It is what you were calling it that was getting under his skin.

A: Absolutely true; and let me add two points to that. First, the main mission for a field psychologist in those combat units during the war was not to touch base with the medical corps, but rather to stay within the units, walk with the troops, conduct brief group discussions or talk to them in a way that does some type of clinical abreaction without calling that therapy "abreaction" or them "psychiatric casualties." We found that doing that could have saved lots of patients who otherwise would become psychiatric casualties. More importantly, part of the training that we are giving to the commanders is for them to do exactly the same thing, especially at the level of platoon and company commanders. Immediately after a battle each platoon and company commander should be able to gather his troops, see about them and rebrief their last experiences, letting them talk about their fears and anxieties and showing his own fears and anxieties. That was the real breakthrough that we made, forcing our commanders to talk about fears, worries and anxieties with their troops, perhaps even saving some of these casualties that will come to the medical troops.

Q: It would seem psychodynamically that what a man has to do in battle when his ego is overwhelmed by events he cannot control, is to magically identify with two things that are more powerful than he is, the leader and his comrades. To have some formal mechanism by which these two extremely valued magical powers have confirmed to him individually that he did a good job, would have a tremendously therapeutic or preventive effect.

A: That was exactly what we tried to do. One of those nights that I spent in Lebanon was with an infantry company of about 30 or 35 kids. They were just returning from a very bitter battle in which they had been ambushed. They had been on APC's and three or four of the APC's were blown up with a lot of casualties. They had just come back to their assembly location. When I arrived, the company commander was sitting there with his 35 remaining soldiers and just talking to them. I heard one of the troops share his experience during the battle. He said, "There was one thing I always counted on and that was looking at our commander." And he mentioned him by his name. "When I looked at Danny (his name) and saw his behavior that is where I gained my resourcefulness. He was such a tremendous comfort for me." At that point I saw that company commander, Danny, just crying. He hadn't been trying to hide it. I didn't say a word; there was no need to say a word. They did a terrific job. This whole session was around those fears and the support, cohesion, and relationships that exist between leaders and their soldiers. And then after an hour or so each went his way. There were no psychiatric casualties from that company, even though they went through some of the most severe combat of that war.

Q: Do you have any indication of how the people performed once they went back from the treatment area into their units?

A: There was a whole range of performance. There were some who tried to show that they had just a temporary incident, they can do much better and they tried to show even better performance than they had before. There were others who were more restrained and never came to the same level as

they had before. There was a whole variety of reactions. I can't make any systematic evaluation. With regard to reoccurrence, I don't know of any case where someone who had been a psychiatric casualty came back to his unit and broke again. We had some followup studies regarding soldiers who were psychiatric casualties during the 1973 Yom Kippur War and were returned to their units. They were again on the battlefield in the 1982 war since in Israel that occurs all the time. Among all 200 of these there were only two reoccurrences or one percent. We consider that very low, almost to the point of chance.

Q: Do you have anything that correlates with our Chaplain Corps? The reason I ask is that the chaplains traditionally do a lot of what you are describing.

A: Yes, we have something similar, only we call them rabbis. They don't see that formally as their tasks, but every now and then you will see a rabbi who will go among the troops and talk with them. Also, we have several units with high percentage of religious or orthodox soldiers. Sometimes in the armored divisions a whole company will be comprised of highly religious soldiers, most of them in tank crews. Some of these companies went through some of the most severe combat and had high casualties. It was my impression, that these orthodox soldiers managed to cope better with the combat stress than the nonorthodox units who were in the same situation. I think that was partly because of these rabbis who were a source of support, but also because of their own beliefs. To put it another way, if an ordinary, nonreligious soldier has as sources of support, his team, his leader, his group, etc., these guys have all this, but one additional source, and that is someone up there.

Table 1

Incidence of Psychiatric Casualties (Battle Shock and Mixed Syndromes)
in Israeli Forces in Lebanon June - December 1982

Adapted from Shipler, 1983; and Noy, personal communication

Psychiatric casualties (including wounded with psychiatric symptoms)	600
Wounded in action (WIA) with no psychiatric symptoms	2600
Killed in action (KIA)	465
For the 1982 war in Lebanon, the ratio of psychiatric casualties (including wounded with psychiatric symptoms) to WIA	23:100 (18.71)
For the 1973 Arab-Israeli War, the ratio of psychiatric casualties (not including wounded with psychiatric symptoms) to WIA	30:100 (23.1)

Table 2

Ratio of Battle Shock to Wounded by Age in Israeli Forces in Lebanon
June - September 1982

Adapted from Solomon and Noy, 1983

<u>AGE</u>	<u>BATTLE SHOCK:WOUNDED</u>
18-21	10:100
22-25	22:100
26-30	38:100
31-35	29:100
36-55	28:100

By Chi Square on actual numbers, groups differ ($p < .01$).

Other factors predicting breakdown (battle stress held constant; wounded soldiers as the control group):

- Low education
- Low motivation score (personality characteristics and attitude towards military service)
- Low performance predictor score (intelligence, motivation, knowledge of Hebrew)
- Reservist
- Support unit
- Low rank

Table 3

Distribution of Psychiatric and Physical (Wounded) Casualties by Military Assignment

Assignment	Percent of Psychiatric Casualties	Percent of Physical Casualties	Ratio of Psychiatric to Physical Casualties
Fighting	69.8	89.5	0.8
Logistic	25.5	8.5	3.0
Services	4.7	2.0	2.4

Table 4

Comparison of Psychiatric Casualties with Paratroop "Controls" (1973)

From Steiner and Neumann, Military Medicine, 1978, 143 (12): 866-868.

<u>Psychosocial Experiences</u>	<u>Psych Casualties</u> n = 74	<u>Paratroop Controls</u> n = 100
Experienced loneliness	76%	29%
Experienced exhaustion	32%	51%
Felt <u>no</u> trust toward immediate commander	42%	5%
Low opinion of own military knowledge	46%	3%
Unit's morale during combat:		
Hi	3%	54%
Ok	25%	46%
Low	72%	--

Table 5

Comparisons Between "Medalists" and Psychiatric Casualties (1973 Arab-Israeli War)

<u>Heroes (Gal)</u>	<u>Psychiatric Casualties (Noy)</u>
1. Good unit cohesion	1. Poor unit cohesion
2. Good, respected leaders	2. Poor leadership (perceived)
3. Confidence in own military skills	3. Lack of confidence in own military skill
4. Stable families	4. Changing family situation
5. Stable communities	5. Transitional communities

Table 6

Battle Stress as a Predictor of Battle Shock
Israeli Forces in Lebanon June - September 1982

Adapted from Noy, Nardi, and Solomon 1983

Based on the battles of four battalions.

Battles were ranked on intensity of battle stress by the following factors:

Pre-combat factors (enemy location, mission, false alarms, training)
Battle (artillery, air attack, ambush, hostage, mine field)
Support (tactical, logistics, materiel)
Enemy resistance (strong, adequate, weak)
Trust by commander in the higher command (unjustified pressure, some pressure, adequate support)

Intensity	Physical Casualties (KIA + WIA)	Psychiatric Casualties	Ratio
1	36	31	86:100
2	23	9	39:100
3	10	1	10:100
4	12	0	0:100

WIA and NP Casualties: 28th Infantry Division

Per Thousand Men Per Week

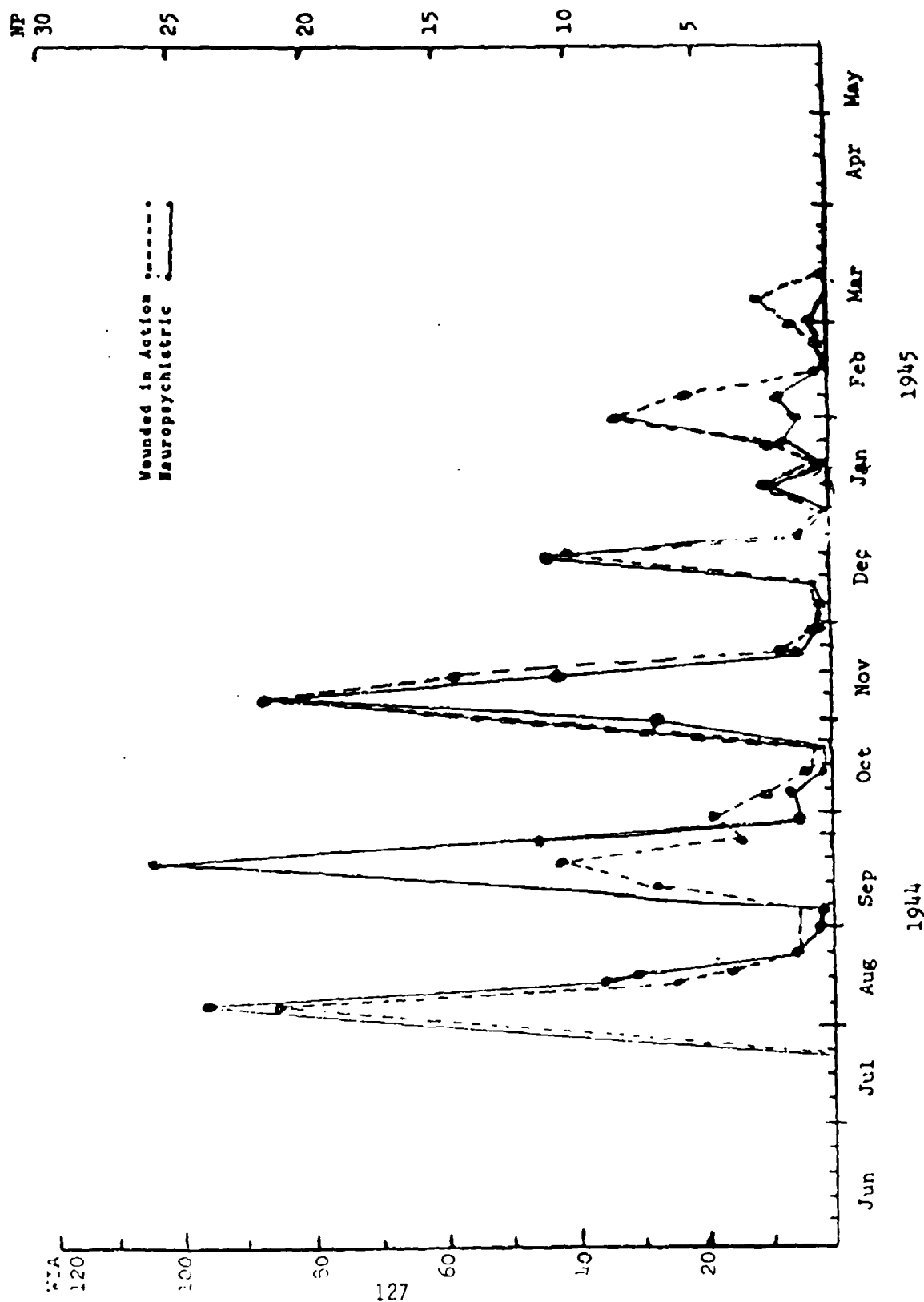


Table 8

Symptoms Reported by Psychiatric Casualties in Israeli Forces in Lebanon
June - September 1982

Adapted from Bar-On, Solomon, Noy and Nardi 1983

1	Anxiety	56%
2	Depressive affect	38%
3.5	Sleep disturbances	34%
3.5	Fear - diffuse, focused	34%
5	Social estrangement, detachment	24%
6	Conversion reactions	22%
7	Crying	21%
8.5	Decreased appetite	19%
8.5	Headache	19%
11	Exhaustion, fatigue	17%
11	Psychomotor disturbances	17%
11	Disturbing dreams, memories	17%
13.5	Tremors	13%
13.5	Confusion	13%
15	Speech, communication impairment	12%
17.5	Dissociative states	11%
17.5	Irritability	11%
17.5	Explosive aggressive behavior	11%
17.5	Memory impairment	11%
20	Noise sensitivity, startle	10%

Table 9

Results of Treatment of Psychiatric Casualties in Israeli Forces
in Lebanon June - September 1982

Adapted from Noy, Solomon, and Benbenishti 1983

(First number in each pair is total psychiatric casualties; numbers in ()
are pure battle shock casualties)

	Returned to Unit	Not Returned to Unit
<u>Forward Treatment</u> (2 - 5 km from the front or on the border)		
Break occurred at the front	60% (66%)	40% (34%)
<u>Rearward Treatment</u> (central and northern Israel)		
Break occurred at the front	40% (46%)	60% (54%)
Break occurred at home following demobilization or while on pass	16% (11%)	84% (89%)

By Chi Square on actual numbers, groups differ ($p < .0001$).

Table 10

Factors Correlated with Return to Duty Following Psychiatric Breakdown
in Israeli Forces in Lebanon June - September 1982

Adapted from Noy and Solomon 1983

Factors positively correlated with return to duty:

- Forward treatment
- Younger
- Being a combat soldier
- Being diagnosed as suffering from battle shock

Factors showing no correlation with return to duty:

- Pre-war medical history
- Country of origin
- Performance predictor score
- Intelligence
- Education
- Motivation score (on induction)
- Type of service (regular or reserve)

Table 11

Combat Fitness Retraining Unit (CFRU)
Third Echelon of Treatment of Battle Shock Casualties in Israeli Forces
in Lebanon June - September 1982

Adapted from Margalit, et al., 1983

60 Patients (10% of total) were treated at the CFRU
Equally divided between reservists and regular soldiers
Most were from combat units
Stayed an average of 26 days
5 patients (8% of total) received tricyclic antidepressants
Regular service soldiers:
 43% returned to original unit
 57% reassigned to non-combat unit
Reservists:
 38% returned to original unit
 62% reassigned to non-combat unit

A number of soldiers went back to combat in Lebanon.

A CROSS-NATIONAL COMPARISON OF MORALE ASSESSMENT:
ISRAELI DEFENCE FORCES AND US ARMY

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The morale of the troops in a military unit has long been considered to be a crucial factor in the unit's capacity to achieve its missions. With regard to combat units in particular, the level of morale may determine their combat readiness (Stouffer, et al., 1949), battlefield effectiveness (van Creveld, 1982), and susceptibility to combat stress reactions (Steiner and Neumann, 1978).

Although various authors (e.g. Baynes, 1967) have asserted that morale is a universal quality, it should be noted that most of the attempts to define morale have originated from Western -- primarily Anglo-American -- industrialized society. The present paper is part of an ongoing study attempting to draw some comparisons between an all-volunteer, peacetime, Western army and an all conscript, semi-Western army on full alert status. The comparisons focus on the concept, measurement and correlates of morale, using equivalent self-report scales. We hope thereby to make some contribution to the parsing of this elusive concept into its essential core and its national and/or situational specializations. More specifically, the comparison may provide some empirical ground for the frequent assumption that the US and other Western armies can and should adopt and apply "lessons learned" by their Israeli counterparts in the area of soldier motivation and morale.

METHOD

Subjects: Data were collected from two sister squadrons of U.S. Armored Cavalry for comparison to previously gathered Israeli data. The source of the latter was a sample of 1270 Israeli Defence Forces (IDF) enlisted soldiers assigned to combat units in the Golan Heights. These data were gathered by IDF field psychologists in May of 1981, while the units were on alert, preparing for a possible deployment against PLO terrorists operating from Lebanon. With these circumstances in mind, we chose a Germany-based armored cavalry squadron (hence labeled USAREUR) as the US unit most similar to the IDF sample in composition, mission and location. That is, such a cavalry squadron has a mixture of tank, mechanized infantry, and field artillery units; its peacetime mission is border reconnaissance; and it is located far from home, in a position to be among the very first combatants in the event of hostilities. Data from a sister squadron stationed in the US (hence CONUS) were collected as a first step in assessing the generality of our conclusions beyond the border-location high-alert unit.

The target populations in each of these squadrons were all junior enlisted soldiers and their first line supervisors, squad or section leaders or tank commanders (no headquarters or support personnel were involved). Leaves, special details, schooling and the like left us with usable questionnaires from approximately two-thirds (300) of this population in each case. We assume that there was not sufficient bias in

this unavoidable sampling to render our finding unrepresentative of the intact units.

Questionnaire: The Combat Readiness Morale Questionnaire (CRMQ) consists of 31 questions dealing with morale, cohesion, and readiness. Scoring was done via 5-point Likert scales. The CRMQ was translated into English in a process involving group-of-experts discussion and a translation back from English to Hebrew. This was initially done verbatim, but some of the items appeared so culture-specific or situation-specific that they would not be meaningful to American soldiers. Three referred directly to Lebanon/PLO terrorism issues and were subsequently omitted entirely from the English version. In several other cases an attempt was made to formulate a parallel item which tapped the relevant concept in a way which would make good sense to American soldiers. Space does not allow a full printing here, but Tables 1 and 2 give some indication of the subject of each question. The questionnaire was administered to company-sized groups by the investigators during February and March of 1984.

RESULTS

For the purpose of this symposium, our analysis will focus on comparing the three samples in two ways: factor analysis of the questionnaire as a whole, and the correlations with the remaining questions of the two items which asked directly for ratings of personal and unit morale.

Despite some national differences which will be discussed below, factor analyses of the three samples were quite similar in their four primary factors, perhaps best summarized as reflecting leadership, small group, and individual facets of morale, with the individual further subdivided into professional and personal. The two US samples were nearly identical in the inner structure of each of these factors, and in the overall and relative amounts of variance explained by each. The IDF sample differed somewhat in the details of factor composition and in the percentage of variance accounted for by the individual factors.

Of special relevance to this paper is the composition of the "small group" factor, which is the first factor for each of the US units and the third factor for the IDF sample. In all three cases, both the Personal Morale and Company Morale items load most heavily on this factor, along with the "horizontal" and "vertical" cohesion items (#s 24 & 25). These are the only four items with loading above 0.5 in the IDF analysis, while in both the US analyses the items dealing with the Company's Combat Readiness (#2), Friends' Readiness to Fight (#4), and the Unit's Weapons (#s 3 & 20) also had high loadings on this factor.

The first factor for the IDF units (accounting for over 50% of the common variance) and the second factor for the US units was confidence in Commanders (company and above). The second IDF factor was composed of equal mix of items tapping self confidence (#s 8, 21, & 22) and items asking about familiarity with the expected mission and associated terrain. The US units also showed a similar factor, though the data from the US based squadron understandably emphasized self-confidence and that from the Germany unit mission and terrain familiarity.

The fourth factor in all three samples centered on items 26 and 27, which deal with worries about personal safety in combat. These two items were essentially uncorrelated with any other item in the questionnaire.

While the cross-national similarities are of general importance, differences between the two military organizations are also apparent. For example, it is evident that unit morale and cohesion are viewed by the American soldier as highly correlated with his confidence in his unit's weapon systems and their condition as well as with other aspects of his unit's combat readiness. In other words, the perceived unit morale is strongly associated with the American soldier's appraisal of the technical and operational aspects of his unit. His Israeli counterpart, in contrast, derives his perceptions regarding unit morale and cohesion basically from the human component of the unit climate (i.e., his own and peers' sense of morale, and his appraisal of the interpersonal relationships among his peers and between them and their officers).

Looking at the data in more detail involves analyses and comparison of the inter-item correlations for each sample. In this paper we shall focus on correlations with the two primary morale items: Company Morale (#2) and Personal Morale (#31). Cross-sample similarities in the pattern of inter-item correlations were assessed by first rank ordering the items on the basis of their correlation with each of the two morale variables, then computing Spearman rank correlations (r_s) between the sets of ranks generated for each sample (see Tables 1 and 2). For Company Morale the resulting figures were: IDF-USAREUR, $r_s=.87$; USAREUR-CONUS, $r_s=.76$ and IDF-CONUS, $r_s=.60$. Corresponding figures for Personal Morale were: $r_s=.65$, $r_s=.65$, and $r_s=.66$. The basic patterns of item interrelationships are thus quite similar in each of the three samples, although the US-based squadron appears less similar to the IDF sample than the Germany-based one, at least in the case of company morale estimates.

Analysis of the item intercorrelations themselves, however, identifies some interesting differences among the samples despite their general similarity; differences which reflect not only cultural or national influences, but also situational ones.

Company Morale: The first major difference between the three samples appears in regard to the Confidence in the Company Commander item (#6). While in both the IDF and USAREUR samples this item is among those most highly correlated with Company Morale (fifth for USAREUR and fourth for the IDF), in the CONUS sample this variable is only tied with two others for tenth. This suggests the possibility that proximity to one's potential adversary and battleground emphasizes the key role of the company commander in the unit's success and even survival in the real case of combat.

Another difference among the samples can be seen with regard to the perceived Company Combat Readiness (#2) and its relationship to the perceived unit morale. In the two US units this item (#2) is the leading variable correlated with Company Morale ($r=.52$ for USAREUR and $r=.48$ for CONUS). In the IDF sample, by contrast, it doesn't appear until sixth place ($r=.21$). Thus, in the US units there is a direct and strong relationship between company morale and the perceived combat readiness of the company. In the IDF units, on the other hand, morale is closely related to other variables (predominantly cohesion and confidence in

commanders) and to a lesser degree with perceived combat readiness.

Perhaps related is the existence, in both the US samples, of relatively high correlations between perceived company morale and both confidence in (#20), and conditions of (#3), the unit's major weapons systems ($r=.30$ and $.30$ respectively, for the CONUS sample; and $r=.38$ and $.39$ for the USAREUR).

It may be hypothesized, then, that unit morale among US troops is more closely associated with technical aspects of the unit (e.g., condition of weapon and perceived combat readiness), while among the IDF units morale is associated more with the human aspects (e.g., cohesion, relationships and confidence in commanders).

Personal morale: As might be expected, this variable is most strongly related, in all three samples, to Company Morale ($r=.54$, $.48$, and $.45$, for IDF, CONUS, and USAREUR respectively). However, beyond this point the samples differ: the IDF and USAREUR samples are similar to one another (but differ from CONUS) in that personal morale is highly related to Confidence in Oneself as a Soldier (#8; $r=.34$ for IDF and $r=.32$ for USAREUR). Consistent with our earlier speculations on inter-sample differences in the relationship between Company Morale and Confidence in Unit Commander, it seems that proximity to a potential adversary gives additional emphasis to those determinants of personal morale related to survival and success in combat.

The two US samples, however, were quite similar to each other, and differed considerably from the IDF sample with regard to the perceived legitimacy of their military missions. In both of the US samples the Justification/Contribution variable (#30) appeared as most strongly correlated (after Company Morale) with Personal Morale ($r=.48$ for CONUS, and $r=.45$ for USAREUR). In the IDF sample, on the other hand, this variable appeared only in the fifth place, with a correlation of only $.28$. This item was one of several for which an analogous question was used in the US version rather than a direct translation of the IDF item. Assuming that the two versions both pertain to the soldier's perception of the legitimacy of his current or prospective military activities, it seems that the legitimacy issue is strongly associated with personal level of morale for the American soldier while it plays a minor role in the case of the Israeli soldier.

CONCLUSIONS

a. Cross-national comparisons in morale measurements -- if they are to include all relevant situations and circumstances -- require an emphasis on functional rather than literal equivalence.

b. Notwithstanding some specific situational differences -- the factorial structure of morale is generally quite similar in comparable US and IDF combat units, emphasizing three principal "axes": group, individual and leadership.

c. Whatever the sample or the method of analysis -- the cohesion items are the ones most closely associated with morale.

d. Proximity to combat threat seems to generate closer associations between morale and confidence in one's company commander and between morale and self-confidence as a combatant.

e. Cross-national differences also appear, specifically with regard to the relationships between morale and perceived contribution to national security, perceived combat readiness, confidence in weapons, and confidence in senior commanders.

REFERENCES

- Baynes, J. (1967). Morale: A study of men and courage. New York: Frederick A. Praeger.
- Steiner, M., & Neuman, M. (1978). Traumatic neurosis and social support in the Yom Kippur War returnees. Military Medicine, 143(12), 866-868.
- Stouffer, S.A., deVinney, L.C., Star, S.A., & Williams, R.M. (1949). Studies in social psychology in World War II: Vol. 2. The American soldier: Combat and its aftermath. Princeton, N.J.: Princeton University Press.
- van Crevald, M. (1982). Fighting power: German and U.S. Army performance 1939-1945. Westport, Connecticut: Greenwood Press.

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TABLE 1

Pearson Correlation Coefficients between "Company Morale" (Item 01)
and the rest of the CRMQ items, in three samples

Items	IDF	USAREUR	CONUS
# 31: Personal morale	.55	.45	.48
# 25: Relationships with officers	.47	.48	.40
# 24: Unit togetherness/cohesion	.41	.46	.46
# 06: Confidence in Company/Troop Commander	.27	.43	.27
# 10: Confidence in Battalion/Squadron Commander	.23	.38	.19
# 02: Combat readiness	.21	.52	.48
# 08: Confidence in oneself	.21	.33	.06
# 04: Friends' readiness to fight	.20	.38	.29
# 05: Confidence in platoon leader	.19	.36	.21
# 20: Confidence in weapon	.17	.39	.30
# 12: Confidence in Division Commander	.16	*	*
# 11: Confidence in Brigade Commander	.15	.32	.17
# 07: Confidence in crew/squad	.14	.37	.20
# 13: Confidence in High Command/Corps	.14	.30	.06
# 14: Confidence in IDF/Army General Staff	.13	.29	.07
# 03: Equipment readiness	.13	.38	.30
# 18: Familiarity with mission	.13	.07	.28
# 22: Evaluation of self	.13	.06	.09
# 28: Leaders talk to troops	.12	.24	.27
# 15: Familiarity with terrain	.11	.12	*
# 29: Telephone home/separation stress	.10	.13	.14
# 21: Soldierly level	.10	.12	.08
# 30: Justification/contribution	.09	.29	.19
# 26: Worries	.07	.03	.00
# 23: Evaluation of enemy	.03	.13	.05
# 19: Useful training	.02	.31	.27
# 09: Probability of war	.02	.04	.11
# 27: Talk about worries	.00	.02	.06

*no comparable item

Spearman Rank Correlations
between samples

IDF-USAREUR	$r_s = .87$
USAREUR-CONUS	$r_s = .76$
IDF-CONUS	$r_s = .60$

TABLE 2

Pearson Correlation Coefficients between "Personal Morale" (Item 31)
and the rest of the CRMQ items, in three samples

Items	IDF	USAREUR	CONUS
# 01: Company morale	.54	.45	.48
# 24: Unit togetherness/cohesion	.36	.26	.38
# 08: Confidence in oneself	.34	.32	.22
# 25: Relationships with officers	.32	.27	.35
# 22: Evaluation of self	.31	.18	.25
# 30: Justification/contribution	.28	.43	.40
# 02: Combat readiness	.27	.28	.38
# 04: Friends' readiness to fight	.27	.33	.31
# 10: Confidence in Battalion/Squadron Commander	.27	.29	.27
# 15: Familiarity with terrain	.25	.10	*
# 18: Familiarity with missions	.25	.10	.20
# 20: Confidence in weapons	.24	.28	.37
# 12: Confidence in Division Commander	.24	*	*
# 06: Confidence in Company/Troop Commander	.24	.22	.29
# 07: Confidence in crew/squad	.23	.17	.15
# 21: Soldierly Level	.23	.11	.28
# 14: Confidence in IDF/Army General Staff	.23	.15	.21
# 13: Confidence in High Command/Corps	.22	.17	.20
# 05: Confidence in platoon leader	.21	.32	.22
# 11: Confidence in Brigade Commander	.19	.28	.29
# 28: Leaders talk to troops	.16	.28	.20
# 26: Worries	-.16	.02	.12
# 29: Telephone home/separation stress	.15	.20	.17
# 03: Equipment readiness	.15	.25	.24
# 09: Probability of war	.00	.06	.22
# 19: Useful training	.00	.15	.27
# 23: Evaluation of enemy	.00	.11	.08
# 27: Talk about worries	.00	.03	.13

*no comparable item

Spearman Rank Correlations
between samples

IDF-USAREUR	$r_s = .65$
USAREUR-CONUS	$r_s = .65$
IDF-CONUS	$r_s = .66$

THE FALKLANDS EXPERIENCE 1982

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Royal Naval Hospital Haslar

When attempting to describe the events of 1982, the perennial problem of where to begin, what to talk about, what to exclude and what the conclusions were, presented itself. Indeed, Samuel Johnson's immortal saying "A man will turn over half a library to make one book" serves to emphasize the difficulties encountered in meeting with this task. It was felt that the most important contribution I could make was to reveal my own personal experiences, again, taking as a theme Bismark's quotation: "Fools say they learn by their experience, I prefer to learn by the experience of others." The experience was essentially that of time spent in the cruise liner SS CANBERRA, one of the many ships taken up from trade ("STUFT") and its journey of 94 days which took it from Portsmouth, leaving on 9 April 1982 calling into Freetown, spending 16 days at Ascension Island, deploying for the Falkland Islands, rendezvousing with the Q.E. 2 and 5 Brigade of South Georgia, returning to the Falkland Islands to off-load 5 Brigade, eventually to become a prisoner-of-war ship ferrying 4,500 Argentinian prisoners to their homeland, its return to the Falkland Islands to make its memorable journey back to the U.K. arriving on 11 July in the Solent, and the marvellous welcome afforded it.

To set the scene, it was considered important to emphasize the background of the author. Born and bred in Ireland, coming from a Catholic home, attending Catholic Schools and University, qualifying in medicine in 1968 and joining the Royal Navy to commence full-time Service in 1969. There followed every Naval Medical Officer's ideal first commission - around the world deployment - visiting such places as the Mediterranean, South Africa, Australia, Singapore and Hong Kong. On return from this appointment, some time was spent in the Submarine Service before commencing formal training in psychiatry in 1972. It is also important to recognize that the family left behind, a wife and six children, ages eleven years to six months, also featured in my experiences.

The history of psychiatry in the Royal Navy can be dated back to 1832, if not earlier. The year 1832 is specified, for in the Medical Museum Library at the Royal Naval Hospital, Haslar, is lovingly preserved the journal of the Lunatic Asylum dated that year. In it is described quite clearly that even at that time the Navy was committed to rehabilitation of its "lunatic patients." For a brief period of time in the mid-sixties, the inpatient facility of the Naval Psychiatric Service was located at the Royal Victoria Hospital, Netley, on the banks of the Solent where it was combined with the Army inpatient facility in this country for psychiatric patients.

At this stage it is necessary to emphasize that this account is very much a personal one; indeed, if such a figure as the Lord Chamberlain, Lord Hailsham, sees it necessary to effect a disclaimer using the phrase "Just because a man feels strongly about an issue is no reason why he should not support it," then it behoves me to repeat such a disclaimer. I am also aware that as a predominantly Army audience you will have preconceived ideas of sailors. Being mindful yet again of another saying of

Samuel Johnson: "When men come to like a sea life, they are not fit to live on land," hopefully what follows will give you an opportunity to see something of the life of a sailor.

We are familiar, of course, with the role of the military psychiatrist which has included in the past such things as personnel selection, officer selection, mental dullness, treatment and disposal of psychiatric cases, forward psychiatry, morale and discipline, rehabilitation and repatriation of prisoners of war and organization of military psychiatry at home and overseas. For various reasons, we have not been involved with the first three of these roles but roles 4, 5 and 6 have been very much our meat in peace time. We are also aware that in war "psychiatric illness or unfitness is the most frequent single cause of invaliding from the Services" (JSP 346-223).

My story really begins with the announcement on 2 April, immediately following the invasion of the Falkland Islands by the Argentinian forces that a Task Force was to be deployed. Bearing in mind that a Division at least would be deployed to effect recovery of the Islands and that a Division contains 15,000 men of whom 10,000 can be considered to be combatant forces, I had a pre-conceived idea of the number of psychiatric casualties to be expected. We know that psychiatric casualties constitute anything from between 10-60% of all casualties sustained and that within a combat division some 1,500 casualties can be expected. This then left us with a figure of between 150 and 800 potential psychiatric casualties. To meet this number of casualties there was deployed a Task Force Psychiatrist, myself, without any support in the form of skilled nursing personnel specifically designated as Mental Health Team personnel. There were a consultant psychiatrist and three psychiatric nurses deployed in the hospital ship, SS UGANDA, which followed at a later date. CANBERRA was joined on the afternoon of 8 April 1982 outside Southampton Docks; she had been boarded about a week previously by an advance party of military and medical personnel who began the initial preparation of her conversion into a troop ship with a hospital facility. By the time we arrived, the flight deck amidships had been constructed thereby covering the main swimming pool. The flight deck forward of the Bridge structure was in final stages of construction and the upper deck was closely packed with chacons, large wooden boxes, filled to capacity with military equipment of all sorts. Within two days the first helicopters had begun to familiarize themselves with landing procedures on CANBERRA as we steamed through the Bay of Biscay. About this time the first firing of live ammunition over the stern could be heard and the ship was rapidly gearing itself for its war role. In association with this, and mindful of the possibility of "being hanged in a fortnight" the concentration of the mind was wonderful.

Already, as the only psychiatrist on board, I had become the subject of some interest for the 16 correspondents who were at this stage desperately looking for copy. It seemed to me that I was in a very responsible situation as perhaps the whole future of psychiatry in the Royal Navy depended upon how I conducted myself. Indeed, I found myself reflecting that I had spent some ten years of my professional life training to be a psychiatrist and only latterly, and by latterly was meant the previous 3 to 4 days, really hoisted in the fact that I was a military psychiatrist. Fortunately my reading of recent papers generated by the consultant adviser in psychiatry had emphasized the lessons of the previous

wars which were to the effect that early intervention was of the highest priority if the number of psychiatric casualties was to be kept at a minimum; so I found myself being amongst the first of the people called upon to present a paper to the CANBERRA Medical Society. The CANBERRA Medical Society was that group of doctors, nurses, dentists in CANBERRA who met regularly each evening using alternate evenings to entertain other significant groups within the ship. It seemed to me that I should concentrate my presentation on the time sequence, emphasizing that combat is made up of three phases - that is the phase before the combat, the phase during combat and the phase after combat - that I should look at the groups at risk, these being identified as the Command, correspondents, the embarked military forces, the islanders, the medical team from the ships' companies and the diagnostic entities touching on such things as neurosis, psychosis and combat stress reactions. It was emphasized that ideally, the Mental Health Team was made up of a psychiatrist with psychiatric nurses in support, enlisting the aid of social workers, clinical psychologists and chaplains. As mentioned above, I found myself in CANBERRA virtually alone but being able to call upon the chaplains for support and occasionally utilizing the resources of the few of our nurses who were doubly qualified in psychiatric nursing, before this were deployed into the field. As always, when talking about stress, there is the question of definition. Stress is a fluid entity and presents in different ways to different people at different times. What we do know, however, is that in combat it can be broken down into external and internal factors. The external factors featuring noise, heat/cold/wet, vibration and trauma and the internal factors being subdivided into physiological and psychological with the physiological subdivisions including fatigue, sleep loss and hunger and the psychological subdivisions including fear, anxiety and apprehension of the consequences of being killed, captured, disfigured or injured. When talking about phenomena, these were listed as:

- a. Tension
- b. Noise sensitivity
- c. Explosive rage
- d. Helplessness
- e. Nightmares and sleep disturbance
- f. Disassociative states
- g. Conversion phenomena
- h. High suggestibility
- i. Depression
- j. Guilt

I have chosen not to dwell too much at length on these in this presentation as they have been amply covered by previous presentations.

What was apparent to me during the course of our voyage was that we were blessed with the opportunity to prepare. Preparation is broken down into initial selection, followed by basic training and unit training and with the benefit of pre-combat alert, clearly we were in a very advantageous position. An additional and very important factor was that a large percentage of our troops on board had previously experienced combat in Northern Ireland, albeit of a different quality. As regards the Navy, I have long held the view that going to sea in a unit, be it surface or sub-surface, is in itself an approximation to combat. The sea can be the most cruel and vicious of enemies if taken for granted and there is ample

opportunity for dealing with stress in the normal seagoing environment.

A significant feature of life on board CANBERRA was the constant training of the men under arms. Indeed, it got to such a stage during the course of the voyage that running, especially running in large groups, had to be banned between 10 o'clock at night and 8 o'clock in the morning to allow those whose cabins were immediately below the quarter mile circular deck to get some sleep. All around the ample upper deck space during the course of the routine day, small groups were to be seen. They would be engaged in such tasks as stripping and re-assembling their weapons, sometimes blindfolded, partaking in active physical exercise, pushing themselves all the time to the limit and constantly competing with each other, discussing in detail and always in small groups, such issues as their last Will and Testament, where it was that they wished to be buried and revising signalling procedures. By the time we arrived at Freetown to offload one or two casualties--amongst whom was the first of our psychiatric casualties, a crewman - quite clearly caught up in a phobic anxiety state with a significant bereavement background, the form was well established of the working day. By this stage, too we had already constructed the hoist which was to take the casualties from the flight deck down to the medical facility immediately below. The area designated as the surgical facility with the four operating tables, the ward for 40 beds immediately aft of it, the Triage system and the area designated for minor wounds had all been exercised to a greater or lesser extent.

At this stage it seemed to me morale was at a high level. Morale has been defined as "that general sense of well-being felt by the group with confidence in their ability to survive environmental stress, faith in their leader and an overall sense of cohesiveness amongst their number." There were many factors which were responsible for this high morale, not least of which was the presence on board of the Royal Marine Band. By the time we had finished our "cruise" some 37 different tasks had been undertaken by this wonderful group of men. They ranged from stretcher bearing of patients whilst actually under fire (their wartime role) to the marvellous Sunday night concerts which became a regular feature of CANBERRA's way of life. It also seemed to me that communication was at the highest on board, communication not only up but down and sideways and as always, the constant presence of small groups with the leaders very much in contact with their men was the real strength of the organization. We were in constant contact with our families at home and regular mail drops, deliveries of papers as well as receipt of the BBC World Service 22 hours a day served very much to keep us in touch with the community at home. There was no doubt in our minds that we were embarked upon a just war, we were very much aware of the support we were getting from our families.

In my instruction of my colleagues and indeed of myself and our charges, I emphasized that battle shock is a temporary psychological disorder experienced in association with severe battle conditions where there have been heavy casualties and significant bombardment. As always it was emphasized that for the most part it is a reversible phenomena, at the same time drawing attention to the fact that all human beings have their breaking point. We know that there is a combat effectiveness in this curve and men can sustain heavy battle for a limited period - at the most 150 days - before they become ineffective. Needless to say, the combat effectiveness depends upon the intensity of the combat and general

situation.

Our arrival at Ascension Island was greeted with mixed feelings. I say mixed, because until then some of us were rather cynical in our attitude as regards whether or not we would go to war. At this stage I would like to go back some two weeks in time and describe our exit from Southampton. Our sailing had been delayed by 24 hours, and we eventually sailed on the evening tide after nightfall. There was a small group concentrated on the jetty to send us off, amongst whom was the band of the Paratroop Regiment. However, we had not proceeded very far down the Solent when we became aware of a tremendous volume of noise coming at us out of the dark. This was accompanied by the flashing of lights which proved to be the headlamps of cars parked in the shore-side car parking areas, and the high rise blocks of flats. Indeed, at one state it seemed as if the latter were co-ordinating the flashing to send messages of good luck in Morse. This scene was repeated along the Hamble, Lee-on-Solent, through Gosport and out beyond Southsea. It was a very moving occasion and served to set the level of our morale at the high level which was to be maintained.

Ascension Island served to emphasize how much the government was behind us if only because of the tremendous volume of stores that had already been committed to the operation. It afforded us 16 days in which to practice the beach assault role, zero in weapons, get in some foot slogging on terra firma and the occasional swim in the warm blue sea. It also allowed us to re-deploy stores initially wrongly positioned and, of course, improve our contact with other units of the fleet.

We sailed from Ascension Island towards the end of April and by the beginning of May were well on our way to the Falkland Islands. History now tells, of course, of the disaster the SHEFFIELD sustained, and suddenly we were no longer talking about dealing with the "spics" but had gained a new respect for our enemy. Cruel though it might be, it was perhaps necessary to experience a disaster such as the SHEFFIELD in the early part of the campaign to heighten our level of awareness and increase our state of alertness. Certainly from here on training took on a new meaning. Shortly after this we began the blood letting sessions - so much a feature of the British Army on the move into combat. Traditionally the British Army has carried its blood on the hoof and we knew that within ten days of taking the blood we would be in action. This, because it is the optimum time in which to store blood before it begins to depreciate and also affords opportunity for the donor to regain the volume if not the actual hemoglobin donated.

On or about 19 May, we met up with the rest of the Task Force and a truly impressive sight it proved to be. For most of us it was the first time we had found ourselves in a convoy made up of 90-plus ships, a welcome sight it was - all the more so as the sea became calm under the effect of a very heavy sea fog and this allowed for the transport of troops between the military troop ship and the assault ships, INTREPID and FEARLESS. Unfortunately, on the evening of the transfer another disaster befell the Fleet, this was the occasion when the Seaking ditched just after dark with the loss of life of 19 of its Special Air Service personnel, leaving only 11 survivors. These passengers were subsequently to be accommodated on board CANBERRA and were the subject of some intensive group work to which I

was privileged to make a contribution. Later on the day of their transfer to CANBERRA from HMS HERMES, the Task Force headed directly for the Falkland Islands. After a feint to the left, it turned right and entered the Falkland Sound. We were unsure before entry as to whether or not it had been mined and the rather ironical story is told of a frigate identified as an Irish minesweeper which was tasked to go in ahead of CANBERRA to determine whether or not any mines were present - apparently we would know whether or not this was the case if she blew up - fortunately she did not and we and the rest of the fleet had safe passage. Anchored off Fanning Head we were given a grandstand view of the Naval gunfire support in action in the hours immediately preceding the assault. The day of the assault proved to be warm and sunny, crystal clear and again we had a grandstand view of the troops rolling in on the beaches. At times it was very reminiscent of what I imagined a grouse shoot in the Highlands of Scotland to be. All seemed calm and peaceful until about two hours after the assault began when suddenly the Argentinian aircraft appeared. From then on there was a succession of air strikes and we grew in our admiration of the skill and daring of the Argentinian pilots. Fortunately for us they were tasked to strike the escort vessels rather than the supply vessels, even still, it remains a wonder how CANBERRA escaped significant damage that day. It was only when we returned to the United Kingdom and saw the repeat news flashes that we realized how close we came to being zapped. Suffice to say that when the correspondents came on board that night to file their stories--the stories they had written as they witnessed the scene from Fanning Head--they were grey about the gills and were keen to get off the ship as soon as possible, even though the weather had turned grossly inclement, and they were at risk of dying from exposure on the ground. We functioned as the major medical facility during the course of that day taking casualties direct from the ships which came under fire, including those that were sunk. Again, I found myself in a situation of dealing with a group of survivors from the after-section of ARDENT and during the course of the day was in a position to support the nursing and medical staff who were busily engaged in their duties treating the wounded. My allotted area as the psychiatrist was in the T4 Section where, fortunately, my particular skills were not called into play. This because we received no mortally wounded patients and in fact the only occupants of the T4 area during the course of the 24 hours were the bodies of three of our comrades killed in action. Nevertheless, they served a useful function as they were amongst the first of the casualties to come on board and allowed the more junior of the Nursing staff to sight a dead body of one of our own people early on in their medical task. They were also able to work through their reaction in relatively slow time, if slow time can be used to describe the lull in between air attacks.

Clearly, the battle plan had to be changed rapidly when it became apparent how effective the Argentinian Air Force was. No longer would it be safe for the supply ships to remain close inshore, and so that night it was decided to deploy them out to sea. A mad scramble followed to put ashore the major part of the medical logistics and at that stage it had not been allowed for the Task Force psychiatrist to deploy ashore at such short notice. So I found myself going out to sea with our survivors and wounded and there followed an intensive period of active intervention on my part both as a General Duties Medical officer and a Clinical Psychiatrist dealing with the bereavement associated with the wounded and the survivors of ships sunk.

As always, the emotional needs of survivors can be dealt with under the following headings. There was initial relief of escape almost immediately followed through by the anxiety about the threat of further attack and fear of further trauma. Mixed with this was the anger not only directed at the enemy but at the units to which they belong and the designers of the ships which were found wanting in certain areas. There was the grief at the loss of companions and of course the ever familiar guilt at survival, this especially so amongst the single men who constantly queried why it was they who had survived and their companions, married men with young families, had been killed.

There was also the need for the rescuers to express their feelings and emotional distress. Again it revolved around guilt over not rescuing more, anxiety at perhaps becoming survivors themselves, confused feelings about the weather and hostile forces and other issues.

At this stage I found myself introducing a drug which has proved to be of benefit to the medical fraternity over many centuries, I am talking about the drug alcohol, which if handled with respect proves to be a remarkable aid. Essentially I advised the following course of action that drinking should be done in groups, preferably over a shared bottle using the bottle as a fulcrum for group therapy. The anxiolytic effect of the alcohol was sufficient to allow people to verbalize their recent experiences and indeed, they spent so much time talking about their experiences and working through their reactions that they effectively had little time to drink. By way of emphasizing this point, during the course of the whole of the 94-day cruise when on average we had 2,500 souls on board, there was a total of 50 alcohol related offences of which 50% were attributed to the military, not a bad record by any yardstick.

In the immediate aftermath of the assault on the beaches we were in a position to send telegrams to our families to reassure them that in spite of Galtieri's claim to the contrary, we were still alive and well. There followed a two-week period dealing with the medical needs of our survivors, making contact with QE 2, transferring the survivors to the QE 2 at Gritvikken in South Georgia, taking on board 5 Brigade and returning them to San Carlos where we were fortunate in making a landing without coming under further air attack. Nevertheless, it was a tense period and once again I was proved wrong in my initial pre-conceived idea that the ship's Company would be a major problem for me as regards combat stress. The ship's Company of CANBERRA were superb in their provision of service for us and played a significant part in the high level of preparedness of the assault troops going ashore. What does worry me when looking to the future, is whether or not we can in all confidence rely on such merchant sailors being available at short notice to transport our troops to war if ever the occasion demands it.

We were very much on the sidelines of the now famous Yomp across the Falklands but kept in touch through the BBC World Service and occasional visits from our colleagues ashore.

Immediately after the fall of Stanley, I made my way to the hospital in Port Stanley to offer my services to the civilian medical organization there. I was convinced that the hostages would be in need of psychiatric

first aid, but this was not felt to be the case by the medical people on the ground. At this stage, having dealt with my professional responsibilities, I was quite happy to remain with CANBERRA and return to the United Kingdom in due course. In between times, we took on board 4,500 Argentinian prisoners of war and transported them over a period of four days to the Argentine. I am convinced that we put ashore 4,500 ambassadors for Britain for the most part made up of young men who had no stomach for the fight and whose morale increased significantly once they made contact with CANBERRA, a hot shower, a warm meal and a dry bed.

Having loaded the "green machine"--as the Royal Marines came to be known--on board CANBERRA, we began our triumphant journey home. The fascinating feature of this journey for me was the amount of working-through people were doing all around me. The three weeks allowed a tremendous opportunity for reliving of battle scenes, making formal contact with critical figures and providing a setting for significant emotional catharsis at times. Again the Royal Marine Band came into its own and the infrastructure of the tradition associated with the Royal Marine Corps proved to be eminently suited to this task. If I had been asked to structure it, I could not have done it better, I am convinced this is one of the reasons why we have seen so few psychiatric casualties from amongst the Royal Marines in association with the Falklands crisis.

Having said this, we must also remember that of course we deployed the fittest of troops with previous combat experience who were going into the attacking role, the country was significantly behind us, we were convinced we were engaged in a just war and we were taking on an enemy who really had no stomach for the fight, on top of which, luck was very much on our side and the weather was kind to us at a critical stage. Having said all this, it was still a very close run thing as has been mentioned in many other reports.

As we neared the U.K., we became aware that we were going to be the subject of a tremendous welcome. However, we had no idea that it was going to be of the intensity the media have now captured for posterity. My memory of that day is being on the upper deck of CANBERRA surrounded by Royal Marines, many of whom were using their green berets to dry their tears. Needless to say, I was using my blue beret and all around emotion was being expressed in a very healthy fashion. I was aware too, of course, that our people at home were taking the opportunity to express their emotion, their relief at the successful conclusion of the war and, of course, to express their sorrow for those who had been killed.

The immediate 24 hours after my return home was spent in the bosom of my family. It was only then I realized the tremendous strain and toll that the conflict had taken on them. There followed my own working through of my problems and indeed at times I still find myself with a lump in my throat when speaking about certain issues. I am now committed to applying the lessons relearned in the Falklands conflict, paying even more attention to the detail necessary in the preparation of our Navy and Royal Marines for their war role. Most of all, I am committed to enhancing the preparation of the Naval Medical Services in the belief that consistent with our role as military medical personnel is the ability to function in the field. It is essential that we recognize that we have two tasks, the first task is to be competent as doctors and nurses and the second task is

to be competent as military personnel and not a liability on the combatants whom we serve. This entails regular training at the coalface, an appreciation of the role physical fitness plays in the part of this training, the commitment to small group cohesion, familiarity with the equipment and the task presented to us, and constantly being critical of those issues which are likely to be contrary to our primary purpose, that is, the preparation for war.

PANEL ON GRENADA

COL Jesse Harris
MAJ Terry Fullerton
MAJ Gary Riggs
CPT Alfred Johnson

COL JESSE HARRIS: By way of introduction, I am Jesse Harris. I'm commanding the medical research unit at Ft Bragg, that other unit that you heard about the other day. It was a newly activated unit in January, a subunit of WRAIR. Previous to that, I was actually assigned to WRAIR as a social worker (a Doctorate in Social Work and Masters). If anyone wants to know where I'm from, I'm from Warren, Ohio.

I'm going to start off by giving an overview of the experiences in Grenada from the men's perception. Major Fullerton will then follow giving more specifics of the perceptions of the men in Grenada, primarily the Rangers. I'm going to be talking primarily about the 82nd Airborne, and he will also go into some detail about some of the medical problems there in Grenada. Captain Johnson, who is also from the 82nd, will talk about what was going on in the home front, particularly with the family support groups. Then Major Riggs, Dr. Riggs, will talk about some of the problems that we saw in Grenada with respect to POWs and some of the psychiatric problems there.

Much of the information with regard to Grenada is still classified by the Army. Recognizing our responsibility to you, we'll try to be as candid with you and give you as much information as possible without us ending in Leavenworth.

NOTE: COL Harris' formal remarks are contained in "Soldier Stress and Operation Urgent Fury." MAJ Fullerton's formal remarks are found in "Combat Medicine During Operation Urgent Fury."

MAJOR TERRY FULLERTON: I am from Walter Reed. I worked with Jesse on this. I had spent eleven years as an infantry officer. I was lucky in the people I was interviewing in that I had served with many of them, either with long-range recon patrols or in the Second Ranger Battalion. My operations sergeant was then the Command Sergeant Major of one of the battalions and a couple of the company commanders had been lieutenants under me. I thought it helped gain some quite honest, frank information from them. Actually even before we got there, they had told me who the people were that we really needed to talk to, the ones they thought might have broken down and might be having issues.

I'm not going to talk much about the Rangers' training or the Rangers' operation in general. I'm going to stay primarily with the medical issue. But I want to emphasize two points. One, they attribute their success and their effectiveness to systematic live fire. They continually do it, at least once or twice a month with all their weapons. It is not the typical range light fire, but they attempt to have, "I shoot across you, you shoot back in front, so we know we can trust each other." It is a team building cohesion through the use of effective fire. Repeatedly, this came up as the most useful thing that helped them perform well. But you do have soldiers who are wounded in peacetime training which is in fact the negative part of training with live ammunition.

There is an importance placed on the elitists' psychological readiness. They emphasize that as far as the dead are concerned, they wanted to see the enemy dead first. So the lead people had been told that if they saw a Ranger dead, they were to cover them with a poncho. Let them see the enemy dead first. They wanted the idea to be that, "We can kill them and not get hurt." They made a major point of emphasizing that. There was a control of information. While they wanted to pass information on the aircraft coming down, they wanted it all to be positive. They wanted the information to be passed in such a way that it would be positive. To emphasize that "we can do it." The great contrast is that on some aircraft, the aircraft commander had it hooked up and was talking to them directly. They were getting messages like, "Lead aircraft has been shot down with the battalion commander. Two companies of Rangers on the ground with only one company left." At that point, leaders immediately stood up and tried to reinforce the positive. We had a number of instances where a leader stood up and said, "We have a company still alive on the ground, and we are not going to leave them. We are going to work this together. We have a chance, we are the best trained and we are not going to leave any of our buddies behind." Never any more negativism than necessary.

They were going to jump at 500 feet which they had never practiced before. The decision of whether to wear reserves or not was left up to each battalion. Each battalion commander explained that his decision was based on psychological reasons. One battalion commander told me, "We're going to jump with reserves because we always do. We know they are not going to be of any use, but there will be the psychological comfort because that is what the men are used to." The other leader told his men the exact opposite, "We're doing this for your best interest. We don't need the reserves. We are going to jump with our weapons exposed because we want to give you a psychological edge." It seemed mostly not their actions but their presentations which were effective. It was almost the old experimental thing, "I'm going to paint the room green," or "I'm going to paint it blue for your benefit." The soldiers always said, "Oh, shit, yeah!"

As for the jumpers, they were anxious to get out of the aircraft. They couldn't jump initially, so they had to go through again. The leads at that time made a conscious effort to present the idea that all was well. So the jump master would say, "I'm leaning out the window, and I'm scared and we are a long way off. I'm going to stay out here as if everything is normal. It is just a typical Saturday afternoon jump. It is ok, men, don't worry." They try to control their voices, their facial expressions. They wanted to have the men feel that this was just a typical live-fire training exercise. The type done once a month or twice a month, nothing different, and that there was nothing to be afraid of. I believe that to be somewhat different from what Ruben and some others said as for the need for sharing feelings. Even now, the leaders in private will tell you how scared they were and what was going on, but they didn't share that with their men and they still haven't. To the men, the leader is god.

Now I am going to switch to the medical. First off, the major compliment is to the Navy. When the people got evacuated, they were very complimentary of the hospital care in the Navy ships. They thought it was tremendous, and they kept giving accounts of how Navy personnel just made them feel that everyone is behind them, similar to Morgan's example. The guy had a sucking chest wound, IVs in and they put in a call for blood. He said as they carried

him in, sailors were lined up, even those who didn't have the blood type. The idea is that it just kind of swelled him that all these people were supporting him and the mission. It had a very positive impact on morale.

I'm actually breaking this down into two sections. I want to let you know my program. I'm going to give you most of the positive aspects first and how systematic training helped. Even with systematic training, there are some real negative aspects. Once they got onto the ships, it was fine. However, initially, the choppers were taking people out and they were flying out to sea not knowing where the ships were. They were just flying around with wounded hoping that they would see ships on the horizon. Initially when they got out to the ships, the Navy wouldn't let them land. Helicopters were full of wounded. They kept asking higher, "Who's going to be there. What type of surgical or whatever is going to be there?"

The lead element showed some extreme foresight in their medical training. They had systematic combat medical training. At least once a month, all the medics got together and had been going over specific traumas and what they would expect in combat. The soldiers also had that training. They also emphasized emergency medical technical training. Every medic had been through the course. Every medic had been through Special Forces medic's training at least for thirteen weeks. They were completely bonded to the unit. They actually trained with the same platoon every time. They would stay with that platoon for the other three weeks of each month. They live fired. The medics actually carried weapons, didn't have a red cross on, and fought as infantrymen up until casualties were taken. At that time they gave immediate care. One of the role conflicts they had (although they said that it wasn't that bad) was that they were attacking, trying to kill, doing the best job they could, then they overran the objective and afterwards they tried to save the lives of the ones that had just finished shooting. Then they go on to the next objective and again switch from attacking and being an infantryman to being a lifesaving person. The week after they came back from training with the PA they in fact taught the same skills to their soldiers. So the individual soldier, every other one, was EMT qualified. They had all been able to put in chest tubes. They all know how to carry IVs, how to put in IVs, how to give morphine.

They kept saying they knew the ABCD and E of lifesaving steps. They knew combat trauma. They thought that was extremely important in knowing, "I'm going to go out as far as I can and either my buddy, my medic, or myself is going to save me when I get hit." They thought that was critically important.

The preventive measures became important considerations. The medics knew which individual soldiers had heat casualties from past operations. The Rangers carried at least six quarts of water and IVs. Those who had previously been heat casualties carried at least eight quarts; some had ten to twelve quarts of water. You drank and your team mates made sure you drank; when you were looking bad, a medic started IVs. The sum total of heat casualties in one day was, one battalion had twenty-two heat casualties, while the Rangers had one. Preventive medicine showed its worth. It is somewhat complicated by the fact that they did so many other things as well. The Rangers thought they were going out on a road march when they were called up. Typically when they get called on alert, they go marching with their ruck sacks. So it is not only the running aspects that the soldiers do, but they practice with heavy ruck sacks, up to eighty or ninety pounds. That was

critical also.

At that level the PA and the battalion Surgeon continually planned with the staff. They planned for and got medical resupply during training exercises prior to and in Grenada. In fact, they are the only medical resupplies that we know of. So besides those battalions sending medical equipment, the 82nd was not getting any of their medical equipment. A critical contrast, and it is the working relationship at battalion level.

Jump Priority: The order in which soldiers were to jump was: First priority, the leaders jumped, the machine gunners, the medics, and the PA and doc, then the rest of the infantrymen. So medics were given a little higher priority.

In respect to the medics staying with the same troops, they said that they were becoming like old-time country doctors. They knew their men. They knew what problems there were in the families, and they spent time in breaks dealing with the issues they thought were going on. They were a close team.

Other preventive measures: They had mattresses on the airplane. Some units had men put ponchos over their heads trying to force them to go to sleep. They put the men to bed, and as in all operations, the leaders got less sleep. However, in that climate, we had examples of XO's coming to company commanders and saying, "Sir, you screwed up. You're not making any sense. You go to bed, I'm taking over now and I'll do the rest of the checking on the operation, making sure everything gets packed and all." And the commanders went to bed. Overall they said that they trained and practiced like they do in regular missions, and they said that Grenada wasn't that bad. They usually got more sleep and water at Grenada and more of other things than they did in some training exercises. So at times they get pushed to the limit, but they practice so much and they get sleep whenever they can and they push water. This wasn't a bad exercise at all.

Reuven has reminded me of a concept. The doctors know the impact of combat medicine to the line; they emphasize and teach it to the line. You have a line that supports the concept. They had the same perceptions for the need for combat medical support. They had the same common expectation about what you will get if you do combat medical training, and if you have medical resupplies. Then they developed systematic medical packages. They had the medical packages all set up and they dropped them off. They planned prior to going, what you are going to need in the way of medical resupply, day 1 plus twelve hours, day 2 plus twenty-four hours. They have them all loaded, prepared and resupplied. That plus the combat medical training of the medics and the soldiers, I think, had a powerful impact on the medical readiness.

As a contrast, I want to give you a couple of examples when you don't have that systematic type approach. One thing that I have to admit, was that the soldiers were remarkable in their ability to tell you something. They said, "Oh, we learned about buddy aid from the Israelis in Lebanon." These were privates stating this, "Oh yeah, we're doing buddy aid because it saved lives in Lebanon." They said, "Hey the Falklands, they carried IVs, that's why we carry IVs. You know, the British found it is important." These were privates who were talking about lessons learned in other wars. We didn't find that when we talked to many other troops.

In sharp contrast, there were a number of casualties from an aircraft,

and no medics were there, no EMT qualified individuals. Luckily, we had one Vietnam vet NCO who did it all. People were trying. That was never the issue (soldiers always tried to help each other). It was a question of knowing what to do. He made sure that both entrances of that sucking chest wound were covered with plastic, and he was doing this with the people who had lost their legs. In fact, he was a combat casualty man. It seems extremely lucky that he was there, because he managed casualties without any medical equipment. They didn't have IVs. All they had were the typical training, or regular, dressing packets. The helicopters who came to get these people didn't have any medical equipment either.

Another example is when you have a mass casualty situation. There were a number of casualties in a short period of time with the Rangers. This emphasizes a couple of points. At the time there was an aviator who was nearby while the medics and the PA were doing a number of things, completing a combat amputation and trying to force liquids and all. And they asked this aviator to put in an IV. The aviator just sat there, and the medic was getting upset. He saw a patient going into shock, and he again said, "Sir, put in an IV." The aviator continued to sit there. The PA came over and said, "Sir, put in an IV." This went on until finally the guy said, "I don't know how to do any of those things. I'm not trained." And the PA turned around and he grabs a private and says, "Put IVs here and here." The guy does it and then goes on with the attack. Having people around who don't know medical aspects, those Rangers want that guy out of there.

One of the contrasts that a number of people brought up in the main element is the lack of doctors who train in the field at the battalion level. And some of them saw it as making a significant difference. If there had been working relations established with the battalion commanders regarding the importance of combat medicine, we would have seen water discipline, sleep discipline, etc. When they go to the field, they never break out the equipment. They were in a terrible bind, breaking out their equipment for the first time, trying to learn to use it while working with doctors whom they had never seen before. They said that is a hell of a way to learn about combat medicine and how to use equipment.

The medics who had received the combat training were competent, before, during and afterwards. And they think that if it happened again, they could do what the combat medicine needed. The medics who did not go through systematic medical training in their units said that they thought they were unprepared to handle medical emergencies. It became very clear to them that they were being asked to do things in combat that they had never been asked to do or even allowed to be near on a regular basis, whether in training or elsewhere. They said that typically their training in combat wounds was between seeing a training film, role playing (typically talking it after reading it . . . not even going through it in a simulation). The doctors reported with no quams that their medics would try to do the best job they could. However, they reported some concern about whether the medics had the skill and the knowledge. They again reemphasized the need for additional medical training with school and line emphasis and for EMT qualification. They saw these as their own needs.

Medics perceptions of themselves differed. One in the lead element said that they were integrated and they were "tight." Some in the followup units reported that they were the unit bastards. They did the jobs that didn't have

anything to do with medical--body bags, shit burning details, anything that was crap, that was what they were assigned to do. They didn't feel that they were well trained. They were frequently assigned to different units, so the men didn't know them and they didn't know the men. They sometimes had concerns about being left behind in these operations because they were the odd man out. They wanted to make sure the squad leader or whoever came and said, "Hey, we are going out now," rather than just going out without them. Typically, they said, "Up until now all we have been allowed to do is just pass out aspirin, and now they ask us to do much more." In some ways it seems the medical establishment is pretty unsupportive of combat medical training.

I have only one instance concerning combat psychiatry. We went back and WRAIR interviewed about sixteen medics and the supervisors, and they asked about these issues and also about psychiatric casualties. Typically, they were familiar with the term, but they didn't really know the symptoms or the treatment. They reported having a class on combat psychiatric casualties during AIT but could not remember any training since. Only one medic had an accurate idea of how to diagnose and treat psychiatric casualties. The most recommended treatment was to remove the guy from the unit and put him in another unit. There appears to be some frustration with the medical establishment and what is viewed by the people at the lower level as a peacetime medical center model. The docs view that the "real docs" are those in the medical centers. Doctors are getting more and more specialized, and the people who control these specialties control the training, etc. They are those who have the least interest in combat medicine. The best trained medics have difficulty working with the medical establishment when they come back from special forces medical training. They want to keep up the skills that they have learned, but they have them cutting glass with their sissors, suturing, etc. Initially OJT programs were established at hospitals; however, after a change in leadership, they can sometimes find one sympathetic doctor. They said medics going to hospitals thinking they will get OJT training are given the sluff jobs. Training is not going on.

The problem we have when we talk to medical center people after we have given the presentation to them, is in switching from peacetime to a combat scenario. Often the most common thing we hear is that the AMA has just gone through an argument saying, "We don't want EMTs to give IVs to accident victims since we get them to the hospital so quickly. And we don't want you guys to do it. We, the doctors, want to control every IV given." We try to demonstrate that there are some differences. We had a man on the ground for four hours before he got to definite care with a sucking chest wound, losing fluids. If you wait for a doctor to be there, that definitely has some issues. So there is a perceived lack of understanding. They don't know the issues that we in combat medicine and combat psychiatry are trying to address, and the orientation is so much on medical equipment in the peacetime army that they can't address it. We are so bloated with our medical equipment that we will never get anywhere with what we carry. We haven't trained on going lighter so the expectation is that we bring everything in the 307th Medical Battalion. It kept getting pushed back. We don't have the plans right now to take fewer pieces of equipment. In fact what they finally did, they sent down these excellent doctors, surgeons, without any surgical equipment. They were there with battalion surgeons on the ground borrowing things. There is a need for planning and addressing what you need to take, or can take, if you are not allowed to bring your whole hospital.

QUESTION: Can I just interject something there? We recognize that as a problem. On a number of different occasions when I was in the 82nd, I made the very strong suggestion to the division surgeon and to the corps commander (we've had two corps commanders and a couple of division surgeons since I've been there) that we get the PROFIS people to train with the 307th men when we go out in the field so they can (a) get to know the people, (b) get to know the equipment, and (c) make some recommendations as to what kind of equipment we need out there in the field. This has not been done.

COMMENT: There's some movement on that. One of the difficulties we had (I was privy to a conversation) was somehow you would conceptualize bringing the PROFIS from all over. They didn't come from a local area. They came from all over. So the difficulties of getting them all down for a training exercise are just enormous, so now they are rethinking of having the focus come from an area they are accessible during training exercise.

Up to now we have presented the issues as though this is the medical system internally, and that is just part of the issue. Another issue is the line not understanding the importance of combat medicine. There are instances of the line commanders not even telling the docs where they are going or telling them a different place than where they are going. Medical assets are left behind because they aren't recognized as a brigade asset. They aren't aware of what they have in their brigade concerning medical equipment and other medical internal assets. There is a lack of orientation as to the impact of combat medicine. The idea has been portrayed a couple of times as, "The mission was to take the . . . and we're told to take bodies and bullets and forget about everything else." So no medical resupplies and no medical equipment resulted in some battalions running out of IVs. Whole battalions ran out by the third day and could not get any. There was the frustration of the doctor as he sees non-alcoholic beer being thrown in and he can't get any medical supplies. Also even after the medical people get down, they are not allowed to set the MASH on the island because they don't want that type of equipment on the island.

In a positive light, we have had some examples of the line and the doctors both being serious about combat medicine. It can be a damn fine operation. For both the Rangers and a couple of units of the 82nd, we saw that. We also have the example of when either of those (it can be either) don't think combat medicine is very important. We have some issues and maybe some serious problems with combat medicine.

We have two examples of possible psychiatric casualties and we will cover them at the end.

MAJ GARY RIGGS: What hasn't been said, that I think we ought to inject in here, would explain a little bit of the communication problems. Typically in the summer time, we have changeovers as far as commands are concerned. The 18th Airborne Corps and 82nd Airborne Division are no exceptions. In the June, July, August time frame at Ft Bragg, we had three key people in the 44th Medical Brigade (that's the medical unit that supports the division) to change over. They changed just before the 44th Medical Brigade and the 5th MASH and elements of the 82nd went to Egypt for Operation Bright Star. The same summer we had two out of three brigade commanders in the division change command, the DISCOM commander changed, and the division commander as well as the division surgeon. All three of our brigade surgeons were new. So here we have a lot

of people who are brand new who don't know one another. Some of these folks were in Egypt for the exercise. Some of these folks were also in Florida for an exercise after Bright Star. And what happened when they got back to Ft Bragg before they could get the equipment really cleaned and inventoried, was to get called to go to Grenada. So you can imagine the confusion that would come into play there. But nevertheless, I was really amazed and surprised that the system did work. The whole time I was in the division mental health section, we had continued a tradition of doing a lot of talking to commanders at various levels and assuring them that when the proverbial "shit hit the fan," the mental health section wouldn't be around. I told them that they would be the ones who would have to treat their troops. They would be the ones at the small unit level who would do the supporting, who would encourage the fellows, who would keep them going in the airborne tradition. Well, sure enough, when it did hit the fan, deployment went pretty much as scheduled. We have one 91-G each assigned to the medical companies, the line medical companies in the medical battalion. Each of these medical companies goes with a brigade, so we did have two 91-Gs on the ground in Grenada. These were senior 91-Gs; two of my best people. The problem on the ground there in Grenada was that the brigade surgeons really didn't know how the system was supposed to work, and they didn't know that there were 91-Gs down there. So the link up wasn't made like it could have been made. We had one new surgeon, it happens also to be a flight surgeon, who had one bona fide stress casualty. I talked to him when I was down in Grenada. He said, "Doc, I sure wish you had been here. I had a guy I really would have liked for you to have seen." I asked him, "Well, didn't you know that Sgt . . . and Sgt . . . were down here. They are my two 91-Gs." He said, "No, I had no idea at all about that." At the time he needed someone the 5th MASH wasn't set up, but the two medical companies were there with their clearing stations. He just didn't know. I think this points out that the people who are going to have to drive this system, the medical support system, are the people at the top. They are going to have to insure that this education gets into courses and that people realize the importance of it. Because there was no way, the short time he had been in division with all the other things going on, that I could have taught him about this. So we get people coming in essentially blind.

In an operation like Grenada, it is a very short, very successful operation and you wouldn't expect any psychiatric casualties to speak of, and we really didn't get any. This one individual that I alluded to just a while ago was, I feel, evacuated from the island prematurely. He wasn't sent back to Ft Bragg. He was sent to Walter Reed, away from his family. Why they by-passed Womack, I'll never know. I saw him after he had a short stay at Walter Reed and was med-evacuated down to us. I told the people down at the hospital to let me know when he came into the ER or when the plane landed to let me know. I saw him and immediately discharged him to his family. After that, I saw him a couple of times and he was doing fine. I left things open, and told him, "You've got my number here. I'd be happy to talk with you." We helped him resolve his problem. The system did work.

As I talked to the 91-Gs, the doctors on the ground, the people in the 5th MASH, and to other folks, it became apparent that there really wasn't any need for psychiatrists down there. What few problems we had, the 91-Gs could certainly have handled. The reason I went to Grenada was not as a tourist but to go as the psychiatric consultant to the medical commander. Something that I had never thought about, I was suddenly faced with. That was of making an evaluation of the civilian mental health care system to see what intervention,

if any, needed to be made. This came after we had shot up the mental hospital, Richmond Hill, there on the edge of St George's. So here again, no training in this area, I do a little epidemiological survey. But just another little wrinkle. A lot of unexpected things.

It was interesting, the perceptions of the Grenadian people and the feelings of the Grenadians. They welcomed our people with open arms. They weren't upset about the fact that we had shelled the mental hospital. In fact the comment I heard most often about the mental hospital was, "It's a crazy place to locate a hospital here at a fort." They felt that it was no one's fault that the hospital was shelled. It was unfortunate that some of the patients were killed, but we were able to affect some changes in that hospital. They had essentially shuck and horse hair mattresses on the beds. Those were taken out and replaced with new mattresses and bed clothes. They had not had running water at that hospital which was essentially an old fortress built in the 1700's. The people were very, very appreciative of what our engineers did. Our engineers even brought in a generator for them. I found out through all this we do have a responsibility to the country we are invading, to the people in that country as well as to our troops. However, I didn't get involved with the troops, I got involved with the Grenadians.

Originally I went down the first of November, then again five weeks later. The second trip was made with two of the people from the American Psychiatric Association. They were also interested in doing a study and making an intervention.

It was very satisfying to see the changes from the first time I was down to five weeks later. It gives me a little bit of confidence in our foreign policy. The way we work things. US aid, the embassy, the Grenadian Ministry of Health, the Army were all working together. The first time I was down, there were no shops open, very few people out, nothing going on, streets full of holes. The second time, streets were being patched, the shops were open, shrubbery along the side of the roads had been trimmed, people were productive, doing things. A lot more competence. So within a five-week period of time, the place was getting back on its feet again. So there was little to report as far as the psychiatric end of things was concerned. The system does work.

QUESTION: Regarding your comments about the civilians, the day after the surrender, I walked along the beach . . . up to the hospital and identified myself to the senior civilian doctor there and said that I was a psychiatrist and asked if there was there anything I could do to help in particular with the hospital. And his attitude was, "We don't need your help." So I tried a different tack and when he came back still saying no, I dealt with my own feelings of guilt towards the islanders. Subsequently, I have detected one or two reports from the literature that have been significant press on the problems among the Falkland Islanders.

We were well received at the hospital, we were able to give them some medical supplies at the mental hospital and render some other psychiatric assistance. The main thrust, though, was to enable the Grenadians to help themselves rather than to come in and take over for them and do things for them. Like I say, five weeks down the road there, it looked like it was working pretty well. So despite all the problems, and certainly we've got some glitches in our medical system, in a bad situation, a situation that had

very little time for planning, I'm really surprised and pleased that things went as well as they did.

Where the mental hospital was had been part of an old fort complex built in the 1700's. The mental hospital was on a lower level than where our people were drawing some fire to begin with. When it got too hot for the folks up on top, they ran down the hill and ran into this hospital building. If you take a look at it from almost any angle, you've got a big wall and above the wall there are what looks like a bunch of houses. Actually it looks like a fort with some barracks type buildings. Nothing to distinguish it as being a hospital. No markings of any kind. What happened when they left the upper part of Ft. Frederick, they took their flag with them down to the hospital. They ran some of the patients out ahead of them, attempted to change clothes with them or something of that nature, and they just started firing from that hospital position. I was surprised really of how little of the hospital was damaged. Just a couple of day rooms and a couple of offices. There was one day room which was a two level thing and a couple of the offices were on the second level. The main parts of the hospital, the bedrooms and the court yard, were intact. They weren't hurt at all.

COMMENT: Let me just say, in fact, what did happen. They did in fact, take some of the patients, put rifles in their hands and force them up on the roof, raise the flag. The Cubans had done this before. This is exactly why the hospital was bombed.

QUESTION: Could you address the issue of impact of the pictures of the wounded in the media.

COMMENT: There was one other wounded at Walter Reed. Everything was fine until he saw pictures on TV of them carrying a shattered body. At that time he had a reaction.

COMMENT: We had one young paratrooper who refused to get on the plane when his unit was loading up. We took a look at him and found that he hadn't had anything to eat all night. His buddies were talking about the coming engagement, fantasizing, telling war stories, etc., and he was frightened; he was hypoglycemic by the time we saw him. At the time we saw him, he was a bit hypobolemic. We took him in and gave him something to eat. There were other combat reactions there. I became aware of them when I went down there and began to wander among the troops. Shortly after the heavy stuff went down, they had began to do ambushes and patrols and PR work and to clear areas that had not been cleared before. This created a lot of anxiety. What we had were stories; we really couldn't set up a mental health system on Grenada which was reflective of the entire medical system. This was going to be a brigade-minus operation and it turned out to be a brigade-plus operation when we met more resistance than was expected. The entire division was never deployed, therefore, the headquarters and support company of the medical battalion were not deployed. The division mental health section was not officially deployed. There was essentially no systematic way of doing things. We had many medical assets competing for about five square miles of ground. We had the 5th MASH and the 44th Med and two brigade clearing stations which were all within two or three hundred yards of each other on Point Salinas. All were competing for the few casualties that were coming through. There was no coordination of effort. So the established doctrine that we imagine, this evacuation line coming back, just didn't happen. That accounted for no systematic treatment.

After they moved out beyond two or three hundred meters from the air field, there was no ground evacuation. Everything was med-evac'd by helicopter just like it was in Vietnam. Many battalion aid stations were by-passed and people went to ships and various treatment centers. There was no systematic way.

There was no systematic way to catch combat stress reactions or stress reactions without actual combat. There was no systematic way to find them; therefore, we only know stories told to us of what happened. A lot of these things are told to me as I debriefed in the mode of S.L.A. Marshall style platoons. They began to tell me of people they encountered within their unit with stress reactions. I can't check the validity of the stories; I can only relate them.

One story involved a supply sergeant. A supply sergeant in a battalion-sized unit whose interaction with the people around him was fear of being manipulated by the people in his battalion for his supplies. So he put barriers against them. He was isolated in his own unit by his behavior. He was late coming to Grenada, but there was still some firing going on when they were going to take the Cuban compound. As the firing started with a couple of bullets hitting around, he went under a jeep. Everybody else was kind of moving around; it was not that intensive fire. When the fire began to move off and get a little less frequent, most of the troopers picked themselves up and began to move out. He did not. In fact, he did not, against orders. He had frozen. He was not functional. He was under a jeep. He was obviously a combat stress reaction, and he was going to be handled legally. I was unable to follow up to see what was done.

QUESTION: How do you differentiate between a valid combat stress reaction and somebody who makes a rational decision, "I don't want to die and will not"

COMMENT: I don't know that I do, sir. That's a good question.

COMMENT: . . . even if he can't function we sort of sympathize with him We have to sort of trust the wisdom of their peers.

I feel that it is a matter of personal definition depending on the fellow that is looking at him. Because even here we have heard combat stress reaction used when there is obviously no combat, or before combat. There is no combat, there is no firing, but we use it as a general term so our individual differences and definitions are quite distinct. I don't know that we have a real concrete definition. My personal definition is if it causes trouble with the unit, if somehow a soldier is unable to function in his role and it is related to combat, that is a combat stress reaction or it needs to be addressed. He either needs to be made functional again, or he needs to be removed from the situation. You are right, the group will look at it as to whether or not they want him around.

COMMENT: The school solution on definitions again. We believe the term "combat stress reaction" is very appropriately used to cover the generic complete range of reactions of combat stress, including exceptional heroism, atrocities, things that are of legal concern, not medical concern. We say "battle fatigue" for those which are on the negative side of the spectrum and

are a medical concern and can be treated with IMPRESS.

COMMENT: I come up with this. Sometimes it is not so much the definition, but the fact that what is the impact of this person's behavior on the unit and on its ability to accomplish the mission. That is the thing that I look at, and I began to forget differential diagnosis and work toward that end. Can we make this fellow functional to attain the mission or do we have to remove him so the unit can obtain its objectives? That is what it means to me.

QUESTION: Is a person able or capable of making that decision for himself if his buddies are not recognizing, not capable of recognizing symptoms, or is he penalized for it, can it only be made by someone else? How do you differentiate between that . . . ?

I don't know that there is, you know, I think that cowardice is a reaction to combat. It's somebody's label . . . That is the criterion, whether or not it is acceptable in the context of the mission and the purpose of the social unit or the military unit that is advancing. It is up to us to recover people after they have fallen out of that system; however, for the military unit, everything that helps me to accomplish the mission is good. Everything that deters from that is bad. So if you are going to help me to accomplish the mission, whatever your diagnosis is, that's fantastic.

CPT ALFRED JOHNSON: I want to talk to you a little bit about combat social work, a new term. I'm going to talk to you about three phases of my activities during Grenada. They are Pre-Grenada, Grenada, and Post-Grenada. Those are the three areas I will cover.

Pre-Grenada - I would like to cover the preparations we have just for general deployments within the 82nd Airborne Division, Mental Health Section. Then, I will cover the preparations for combat. Preparations for deployment: the Mental Health Section through its preventive efforts does a lot in preparation for general deployments. We are specific about it because division deploys a lot. We are constantly on training exercises. To show you that some of those training exercises are stressful in themselves, in terms of casualties, Grenada was no big deal. A year and a half earlier, we lost more people on Operation Gallant Eagle than we lost in Grenada. We had six dead and 143 wounded on a drop in the desert. In terms of absolute casualties, it was just another operation. I think that explains the bumper sticker that Gary saw, "Field training exercise, what's different?" It's just another set of casualties associated with jumping and being dangerous. We are very experienced in deploying people. The Sinai experience gave us a lot of experience. We have a lady at the back of the room, Linda John, who did some very early work on the first deployment of the family members to the Sinai. That gave us information that we could use in order to bolster the social systems in the rear to prepare the next family members for deployment and soldiers for deployment and we use that information. I told you the other day about the things that we do with the family support groups. Division made up a plan during major deployments to make family assistance centers within the division responsive as communication and support networks to all family members. We prepared policy plans to be put into effect when deployments began, not just combat deployments but any large scale deployment, and it escalated. For a brigade deployment or smaller, the family assistance was in the brigade headquarters. If more than a brigade were involved, the family assistance center went to division level. That is what happened during the

Grenada operation.

We didn't do as well in preparing soldiers for deployments. Usually we run them through a POR check to make sure that they have a will and that their wives have a power of attorney. We do that sort of thing. We don't talk a lot about what separations mean to them and their families. We do a little less with soldiers in preparation for deployments.

As far as we, the divisional health section, are concerned I think we did really well. We probably overtrained ourselves. We made sure the 91-Gs received periodic training, etc. That principally fell under Gary's purview and he took responsibility.

COMMENT: At the first iteration of troops to the Sinai (since it was very obvious that I wouldn't be going) I wrote a mental health handbook. It is in use in the Sinai since there are no psychiatrists present to help them.

In these preparations for deployment we had a good deal of success. Manning wrote a paper in 1979 in which he compared our division, or he noted some researcher had compared our division, with another division. The other division had some family programs. Our division had neither family programs, nor preparation for deployments. This was just a training exercise. What they found was that the 82nd evacuated ten times more people for family problems from the training area than did the other unit. The success was that within three years, utilizing the information that we had gotten from WRAIR and doing the preparations, we had deployed a unit to the Sinai for six months and had evacuated no soldiers from that unit for family problems during the entire six months. We count that as successful preparation for deployment.

Preparations for combat: we had very little experience preparing for combat. None of us had been in combat and most of the division medical people had never been in combat so we really didn't know what to expect. We attended a workshop on what we might expect, and we saw some deployment scenarios. We went back and made up our goals and plans to prepare our division as best we could for what we thought might happen in combat. We were probably a little less successful in doing that. Probably because we didn't have very much experience.

One last thing on the families. We had an elaborate family support system in development before we went to Grenada, and the division was aware of it. We had made great inroads into the division headquarters section. They were very much aware of what we were doing in those areas and were very supportive of mental health activities in the prevention of combat stress casualties.

I worked in two areas in Grenada. I worked in the rear area operations during and just shortly after deployment. Right after that, I went to a social work conference with a family support group member to make a presentation on family support groups. The conference lasted a week. The day after I returned I went to Grenada. It was a very strange, surrealistic experience. Part of the world was at combat and the rest of the world didn't know what was going on down there. That was very strange for me. I had to work through that and I don't know if I have worked through it yet or not. Like everyone else, I got word, "Come in, we've got something going on. Pack your . . . pack. Put your helmet on and be prepared to stay for a while." No

big deal, I expected it. We went in. I put my ALCE pack in the XO's office for the 307th Med Battalion and looked around to see what I could do as an officer to fill in and to help get the battalion deployed. I also tried to find out when the division mental health assets would leave and at what echelon we would leave. Those were the two questions. The second answer was, "We don't have any plan to get you out real early, so fill in where you can." So it was a matter of simply waiting to be told when we were going out and on what airplane we were leaving in the deployment sequence. It looked like it was going to be a while because quite frankly, we were getting bandages to the front first (if we could get them there), and then docs, and then the very last priority was probably the division mental health section. In defense of that sort of decision, we looked at it as low intensity combat. We did not think that we would be seeing a lot of combat stress casualties. So we were low priority by planning.

The first thing I was called to do was to put the families together right away. We had to institute networks and family support groups. They opened up the family assistance center in order to consult with them about their operations. The people staffing the family assistance center were the division reenlistment officer, division AG people, division legal people. They didn't know how to relate to people who were in crisis. It was a teaching experience. They had all the skills needed as human beings, just being a little sympathetic and helping with problems. They became comfortable dealing with people in crisis.

The next role was setting up a communication network across all the family support groups in the division. They set up a movie theater for a huge family member briefing. The news releases stated, "If you want to know something about what is happening to your husband and what's going on, come to this briefing." The division originally thought they would get about six or seven hundred wives. What they got was several thousand wives over three days. They filled up that theater four times and still had not reached the need. There were many phone calls coming in, saying, "Where's my husband? Where's my son? Is his unit going?" Those sorts of things.

During the meetings, we formed the family members into groups. We did an immediate formation of a community right in the group. What we were trying to do, although I didn't conceptualize it at the time, was to prevent a panic, to prevent a lot of dysfunctional behavior. Let me read you something. I guess I had read this ten or fifteen years ago and forgot it. It just got incorporated into practice like it usually does, but this was pretty much what it looked like. I'm reading from Theory of Collected Behavior by Neal J. Smelser. They talk about hostile outbursts and panics and social phenomena that happen to people. The data on panic and shock showed that most people in conflict did not undergo panic or shock but most people in panic or shock did evidence some conflict in their behavior. In both cases, the existence of some functional social organization to which the person could assume a significant role was the crucial variable in minimizing dysfunctional behavior. So our thought was to get this entire division's family members organized into some sort of functional organizational support and communication network in order to prevent a lot of dysfunctional behavior. Not just "head" behavior, but social behavior: talking to reporters and complaining, manipulating in order to get their husbands out of the combat zone, threatening to commit suicide if they didn't get their husbands back. All those sorts of things that people have done on other occasions. We put

the rear detachment commanders in the theater and outside the theater to group the wives. We wanted the 307th wives to go to the rear, the first of the 17th CAV in another area. We just split the wives up that were in there. Then we said, "What we want the wives to do is to all exchange telephone numbers, get a few contact people, get your rear detachment commander's telephone number and the family assistance center's telephone number." Then, we set up this communication network. The wives took it from there. They moved into the empty battalion buildings and used the battalion's phones and word processing systems and began to mail letters to the single soldiers' mothers and fathers telling them that everything was all right. We still could not tell them whether their husbands in a specific unit were in Grenada or not, but they knew because they didn't come home. And so they knew and somebody very close to their battalion, somebody very close to their husbands' unit, in fact somebody that their husband knew, was telling them that and that was the rear detachment commander.

So, we were very successful with families. I worked very hard getting the families organized and getting them in a state where they could be less dysfunctional. We not only prevented dysfunction, but we began to reap benefits as far as improved performance with division troopers. Morale picked up. I don't know if you guys viewed the homecoming on television, but that homecoming was manipulated by the PAO section in the division. We used the family support groups to go have that great, big, huge crowd out there with all those waving flags. We only had two days to plan that homecoming. We could not have done it without the family support members. We got word down to them faster than we could get it out to our own organization through the division organization because all we had to do was make two phone calls. One was to the Chief of Staff's wife. Within six hours, most of the wives within the division knew what was happening. We had a great turnout, and it was in a cold rain storm when the first redeployment came back. The family members had big banners across the street, fifteen or twenty, thirty big banners. There were things on the banners like, "This is the 82nd Airborne Division," another had a little picture of Grenada and a Communist hammer and sickle, with "This is as far as the bastards are going." The family members were really into it. The word had reached Grenada about this and the guys in Grenada were actually aware that their family members were being taken care of and were ok.

I did a lot of message carrying as an officer in the battalion. Also, for the fellows that were going out on the Alpha echelon, we were able to run and get them shaving kits and take them back to green ramp. Things that they had forgotten. We were able to talk to them. I remember a friend of mine who had just returned from the Sinai who was going to Grenada. He was just married. He was a high risk guy and I remember spending about a half hour with him. He and I were sitting on the back of the gamma goat lined up for the aircraft on the green ramp. We simply talked. So, we did a lot of self-healing within the battalion, preventive work for combat stress casualties. I do a lot of work as an officer of the battalion.

SOLDIER STRESS AND OPERATION URGENT FURY

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As of the date of the presentation much of "Operation Urgent Fury" was still classified and considered sensitive. This presentation merely highlighted interviews with the average soldier who was engaged in the operation. A fuller more indepth report will be forthcoming pending clearance.

OPERATION URGENT FURY - the rescue mission in Grenada, was by any standard a low intensity conflict. Psychiatric casualties were extremely low; to the best of our knowledge there were no more than three recorded cases. This is not surprising since hostilities subsided considerably after about twelve hours. From that point on it basically became a "sniper's war." The majority of troops were alerted around the 24th of October 1983. The Chief of Staff of the XVIII Airborne Corps ordered me to Grenada on the 8th of November. I was there until the 13th of November. My mission was to collect data on the experiences of troops who had been engaged in hostilities and to identify factors contributing to stress. The majority of my time while there was spent interacting with the infantry battalions of the 82nd Airborne Division. Concurrently, MAJ Holgate from my office was interviewing troops who had recently returned from Grenada. Shortly thereafter, we collaborated with Dr. David Marlowe of the Walter Reed Army Institute of Research and MAJ Terry Fullerton from his office, and included both Ranger Battalions in the study. As you know, the Rangers and selected battalions from the 82nd Airborne Division spearheaded the operation in Grenada. They were followed by other units from the XVIII Airborne Corps. We conducted individual interviews and group interviews. We specifically targeted squads, squad leaders, platoon sergeants, and company commanders, and soldiers identified to us as having had a unique experience whether positive or negative. We attempted to capture their experience from the time they were alerted. What follows then, is an account of the soldier's personal experience in connection with Grenada.

I'm going to ask you to make yourself comfortable and take the role of the men who would soon find themselves in Grenada. Since most men indicated they felt most stress prior to the actual deployment, I shall focus primarily on that period of time.

Your average age is about nineteen years. If you are a squad leader, you are approximately twenty-two years old. If you are a platoon sergeant or higher, you are close to thirty or you are in your thirties. Only a few of you have had prior combat experience. For our purposes you are all airborne qualified and are either members of one of the two ranger battalions or of the 82nd Airborne Division. You are proud to be members of your unit. You have been socialized to believe that you are the best. You are also aware that most likely you will be the first to go on a "real world" mission should the situation dictate. You have been told this from the time you entered your unit.

Today you are going about your duties as usual. A few of you are in school, some of you are in the field on training exercises, a few of you are on special duty or on leave. None of you dream that in a few short hours a series of events will unfold which you will remember for a long time. If you are in the barracks that evening the NCO has begun knocking on doors, yours as well, ordering a mandatory formation. If you were at home with your family, your telephone rings - you are to come in immediately. If you are in the theater, one of your buddies comes in to tell you that there is an "alert." Most of you give no thought to this for it is not unusual to have Emergency Deployment Readiness Exercises. If you are a ranger, you were alerted earlier but for you it is not unusual to be suddenly called out for Saturday morning marches. "I'll be back in a few short hours," you tell your wife, "I have to go in for a TA-50 inspection." The wife of one of you asks an interesting question. "When is the last time you have had to go in for a TA-54 inspection on DRF-5?" You ponder that question, and slowly answer, "Never." Neither of you say anything more as you leave the house. When you arrive in the company area, you immediately sense that something is different. You will later describe the atmosphere as being "tense." People are scurrying here and there. Your squad leader orders you to lay out your TA-50. Rumors are rampant. Rumor has it that you are going to reinforce the Marines. You consider rumors that you are going to Cuba to be far-fetched; and you dismiss the few rumors which indicate a Grenada deployment since you never heard of that island. "Chances are," you say to yourself, "Just another EDRE, or at best within a few hours they'll dismiss us to go back home." You change your mind when you are issued live ammunition, a flac jacket and atropine syrettes. You begin to wonder even more when the medics are issued morphine. The rumors are being substantiated by "frag" orders, indicating that it's the real thing and you are going to Grenada.

You still have lingering doubts, but you are caught up in the excitement around you. You join with the chorus of men in your squad who boast you are "going to do what we have been trained to do." Is the rumor about Grenada true? "Where the hell is Grenada?"

Many men reported being stressed with concerns around family. You are not permitted to make telephone calls, nor can any be received, and you're not permitted to go home. For those of you who are married, you wonder about your family, your wife and your parents; who will tell them why you are not coming home. Will they be told that you have gone to Grenada? Will they be told that you are in conflict? How will they pay the bills? How will she manage with her pregnancy? For those of you who are single, other issues begin to crowd your thoughts. Did I leave my lights on in a safe place? How will my girlfriend and parents find out that I have been deployed?

Some of you will wonder if you will make it back. The CO in his briefing has told you that some of you may not return. Many of you write messages to your "significant others" and tape them to the inside door of your wall locker. Pacts are made with other squad members to insure that these messages are delivered in case you don't make it back. Such was the case of the young corporal who said to me:

I told my buddies what I wanted done if I didn't come back. I told them what to tell my wife, that I wanted her to have the insurance money, except for a little that I wanted to go toward helping my brother in school.

Or the specialist who revealed:

My old roommate wanted me to get to his father personally and give him his collection of baseball cards should anything happen to him. . . . he made me promise.

Obviously, the concern over the abrupt separation from family was not just characteristic of the young soldier. One of you, a Vietnam veteran expressed these sentiments:

The greatest fear I had was the alert notification. It didn't dawn on me what we were really to do until, a squad leader came to me and said that he was having problems with one of his men and wanted me to talk to him. The young private said, "I'm scared." I told him, "You aren't any worse off than anyone else." He said, "I've got a wife and a young son. I want to see him grow up." If he hadn't said that, I would have been perfectly okay making the deployment phase. But, when he said that it dawned on me that I could actually get killed doing this. . . I think I would have felt a lot better if I could have gone back home and told my wife, "We are going to deploy. We're going to Grenada or something." I would have felt a lot better about that Later on I caught myself wanting to call her; I thought, "Maybe she will call me." A few times I caught myself going downstairs and listening to the phone. Maybe I could say something to calm her and I'd be okay. Probably the best thing going was that I didn't get a chance to talk to her. I went back upstairs and went about my business of getting the platoon ready.

Many leaders expressed concern over the readiness of their men. The events which accompany each passing hour gives rise to soul searching with respect to the combat readiness of each individual. If you are a leader, you wonder whether you have done all the things that a good leader should do. Several of you describe those agonizing moments.

My biggest question was, "Have I taught my men everything that they need to know to survive?" I pulled my squad leaders in and said, "It looks serious. Is there anything that I have failed to teach you that we need to do, or is there anything you failed to teach your men that they need to know in order to come back?" You've got to feel confident going in with your force that you can bring them back out.

In our probing you reveal interesting facts about sleep, rations, and hydration. Most of you will get very little sleep the first night. The word is out in some units that anytime you weren't doing anything you are

to sleep. The First Sergeant has ordered that there will be "no card playing, no reading, no bullshitting." If you aren't planning for the mission, or loading ammo or otherwise detailed you may eat, drink water or sleep, nothing else. Most of you will be busy that night, those of you who do lie down will be pondering the uncertainties of tomorrow. If you are a leader, chances are you get no more than three hours of sleep. What about food? Most of you will eat well this first night, although you will later relate how you discarded your C-Rations in the loading area in order to fill your rucksack with ammunition. Some of you will go into battle with one C-Ration, some of you with only parts of one. You claim the C-Rations take up too much space and weigh too much. Some of you are in units that will force you to hydrate, but others of you will not experience such water discipline. Most of you will carry six quarts of water into battle. But, you may belong to the few units that require you to carry as much as eight quarts. Such foresight will not go unrewarded.

The plane trip to the island will be relatively uneventful for most of you. However, if you are in the lead elements the anticipation of combat provides for a tense flight. You are told you may make a combat jump. If you are a ranger, you will have to jump in at an altitude lower than usual. You have never jumped that low before. You've only recently seen a photo of the drop zone. It is surrounded by water. You don't want to land in the water. You will be jumping on the airstrip, you don't want to land on the hard asphalt. Your mission is to secure the airfield. You now know the enemy awaits you. You don't want to be shot in mid-air. All of these considerations make for anxious moments and make air landing more attractive to some of you. But you are rigged and have been since getting on the plane. The aircraft is crowded, you are weighted down with your rucksack and you are extremely uncomfortable. You can't wait to get out. But it's a long flight to Grenada, there is hardly any room for movement, and there is little you can do except attempt to sleep. As you approach your objective it is clear that you will jump.

No one is shot in mid-air, and only one man is injured in the jump. Contact with the enemy is made shortly after you, the battle has begun.

Those of you who are in the lead units and have similar concerns, but with one additional stressor. You are not sure if you are going to jump into combat or airland; it is that uncertainty that stresses you. Whether you airland or jump depends upon the success of the rangers in securing the airfield; you must wait for the news of their battle. Attempts are made to keep you informed. The current battle situation is announced over the C-141's speaker system. But, the noise of the aircraft makes the announcements inaudible from where you sit. You must depend upon the word being passed down. Much information is missed. Rumors begin to circulate concerning the number of ground casualties. They range from light to total massacre. At one point it looked as though you would be jumping so you rigged in flight. Now the word is you will not jump. The word is that the airfield is secure - you will airland. Most of you are relieved.

As your plane circles the island some of you notice the bursts from the anti-aircraft guns. You wonder if you will be able to land before the plane is shot down. Some of you now prefer to jump. You reason that you,

will make a smaller target than the C-141 landing on the airstrip.

The tailgate of that airplane was lowered. It was real quiet and all you could hear was the engine running. No one was saying anything. My platoon leader jumped up and said, "Let's go." They were walking at first, then everybody started running. It's my first time to be deployed; I didn't know what was happening. I was just following everybody else. As I came off I could hear a couple of shots being fired. I said, "Oh, shit. I have stepped in something I don't want to be in." As I was running I locked and loaded. "This is it," I said, "You better learn how to run quick."

But running wasn't always that easy. One reason was expressed by a mortar man.

What bothered me was I knew I was late getting to the assembly area after I jumped on the airstrip. I knew I was moving too slow. Everytime a mortar round would come in I would find my face in the dirt. Then it would take me a little while to pick myself back up because of the weight of my pack. I think one of the most important things is that we don't train actually carrying a combat load like we carried there, we were very, very, bogged down, I mean we could hardly move. We train with packs that weigh 60 - 65 pounds, but this time we have quite a bit of ammunition. Once you fall to the ground, it's not very easy getting back up.

All levels of command tend to agree that the conflict resulted in a more cohesive unit as exemplified by this interview.

That's one thing we did was to cover our ass big time. Everybody was watching out for everyone else the whole time. We told each other if one of us went on patrol the other would go, if one looked one way the other would look the other. My buddy volunteered for patrol, so I volunteered too. I had to put my problems way back in my mind until things quieted down, I had a mission to accomplish and that came first in Grenada. One NCO who always dogged us in garrison was looking out for us after our sergeant got killed--checking on water and asking, "Are you all right?"

You are proud of your own performance. You can now boast of having been in a firefight, the target of snipers and you have even killed. You state that it has not bothered you - he was the enemy and you were doing your job. The news that your fellow comrade has been mortally wounded does not significantly deter you from performing your mission. You state that you "blucked it out of your mind." This is partially substantiated from an interview with a squad leader.

When the 60 gunner was killed, the assistant gunner did what he had to do immediately, but I knew it was bothering him. He did his job and he never had any problems doing it, he took right over.

This is not to say that it had no effect on you at a later period.

Every conflict gives us an opportunity to reflect on our performance to determine what can be improved upon to reduce physical and mental stress. Our study is still in the analysis state, but here are a few preliminary observations and recommendations: 1) Shock of sudden family separation - Family Support Groups seem to be a major stress reducer, not only for the families, but for the deployed soldier. What is important is that the families be given as much information as security considerations will allow concerning the status of their sponsor. Equally as important, the soldier must be assured that his family will be notified. The Israeli experience has taught us that soldiers who carry family worries with them in combat are less effective. 2) Sleep discipline - Enough has been written about the importance of sleep prior to battle that leaders should require each soldier to get sleep if not detailed prior to the operation. Some units did this, others did not. 3) Hydration - Units that enforced water discipline suffered fewer heat casualties than did units which did not. Forced hydration is a must. Thirst is a poor indicator of the body's need for water. Troops must be ordered to drink. 4) Food - Very few troops complained of being hungry during or after the operations. However, the fact that they sacrificed their C-Rations due to weight indicate the importance of dried food, i.e. M.R.E. Food may not always be readily available. 5) Weighty Rucksack - Consideration should be given to alternative means of re-supplying troops so that the weight of their equipment does not become a hindrance in the performance of their mission. 6) Armored Vest - Flac jackets have been identified by troops as a contributor to heat casualties. However, flac jackets save lives. Troops should be required to train in flac jackets (and drink water) just as they train in MOPP gear. 7) Medical training for non-medical personnel - As in every conflict medics are not always around when men require them, non-medical personnel must use whatever skills they have to preserve life and limb. It seems clear that each unit should have non-medical personnel designated to receive Emergency Medical Training. 8) Realistic Training - There appears to be a direct relationship between the soldier's perception of his having received "realistic training" and his level of confidence going into combat. 9) Grief Management - While most troops "charged on" when their comrades fell in battle, there were isolated instances when the troops were significantly stressed. Equally important, many troops exhibited symptoms weeks after returning to the United States. It is therefore important for leaders to recognize grief reaction on the battlefield and provide the necessary interventions to assist the soldier in remaining effective. Similarly it is important for leaders to recognize post-traumatic symptoms of grief.

We can also identify some of those factors that we believe were significant in reducing stress: 1) The low intensity of the hostilities. Most men experienced either light resistance or no resistance. 2) Training. Those men who felt that they had received realistic training

could state in retrospect that they fought the war as they had trained. It further provided them with confidence in their weapons, in their fellow squad members, in their leaders, and confidence in their own abilities. 3) Superior fire power, both with respect to ground forces and air, was acknowledged by many to be extremely comforting. 4) Support system among fellow soldiers. Fellow squad members provided a significant support system for one another which was a major stress reducer. 5) Information regarding notification of family. The knowledge that their families had been notified and that there was a family support system in operation was comforting to many of the men. 6) Experienced NCOs became a major support system for the young soldier who could look to him, not only for guidance, but also for assurance that everything was going to be all right. 7) Friendly islanders, was a major indication to the troops that they had the support of the people. The news that they had the support of the majority of the people here in the States was equally uplifting.

As you know, the most intense fighting occurred on the first day. Interviews with you, the leaders, revealed unanimous satisfaction in the performance of your men. Most of you commented on the fact that your troops advanced upon command and returned fire without hesitation. You speak proudly of your men who performed heroic acts and captured large numbers of prisoners, caches of weapons and documents.

Those of you who were involved in combat in Vietnam are reluctant to make comparisons with this operation; however, you do not hesitate to rank the performance of these troops over those with whom you served in that previous conflict. You attribute it to the eliteness of the unit and the high caliber of training.

For most of you the highlight of the operation was the rescue of the medical students. Most of you will reflect on those scenes with a sense of pride of the mission and the country.

You who are squad members will express confidence in your officers and noncommissioned officers, and you heap praise upon one another. A few of you are willing to admit wetting your pants and shaking after a skirmish. A few of you acknowledge that a few troops did not live up to your expectations, but none of you report seeing a squad member break ranks in the face of battle.

You have the best squad, the best platoon, the best company. The majority of your fellow troopers established themselves as good soldiers in your sight. If you had to return to battle, "It would be with this unit."

COMBAT MEDICINE DURING OPERATION URGENT FURY

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Soldiers fight and die for their comrades. They persist against fear and poor odds for self survival, sustained by the determination not to let their comrades down. 1. (Warriors, p 40) What helps them make this seemingly illogical decision to stay with and risk their lives for their comrades is the belief their comrades feel the same way about them and that, if they are wounded, their comrades will rescue them, providing prompt, competent lifesaving aid. 2. (Lyn & Greg, p. 31) This belief is at least partly based on reality. During both the Vietnam and Yom Kippur Wars, over half of the recipients of the Medal of Honor risked their own lives to save the lives of others. One third of them died in the rescue attempts. 3. The surviving heroes typically said, "I did it for my friends because I was convinced that they would have done the same for me." 4. Rescuing the wounded, however, is only part of the process. The French in 1917 hung their doctors in effigy because of atrocious combat medical support. They learned, during the Yom Kippur War that their soldiers MUST know how to provide prompt lifesaving aid and subsequently Israelis increased their soldiers' medical training to 60 hours during basic training, while we, the US Army, still provide only ten hours of first-aid training to soldiers during basic training.

The Israeli Army learned that their soldiers MUST know how to RESUSITATE and STABILIZE their wounded comrades, have we? We tested our combat capabilities during Operation Urgent Fury in Grenada. This report focuses on the effectiveness of the US Army's combat medicine as seen and reported by over two hundred of the soldiers, medics, leaders, and surgeons who participated. These interviews were conducted during breaks in combat operations in Grenada, and upon return from Grenada. Researchers from the Walter Reed Army Institute of Research made a special effort to interview participants whose units saw the most combat and those whose units suffered the most casualties.

The critical lessons to be learned about providing competent combat medicine are that line commanders and medical professionals must share:

- (1) common perceptions of the need for combat medical support,
- (2) common expectations of the difficulties of providing medical support in combat,
- (3) the foresight to develop comprehensive combat medical training for both medics and soldiers.

HOSPITAL TREATMENT

Soldiers injured in Grenada were treated on Naval ships and/or at CONUS hospitals and overwhelmingly, they praised the competence of the surgical and post-operative care personnel. Injured soldiers reported that once they got to the hospitals or hospital ships they felt relieved and confident that they would receive the best possible care. The personnel on the Navy hospital ship were applauded for their concern, care and compassion. One of the more seriously wounded described it this way:

I was stabilized, and they gave me additional IVs and replaced the chest tube. The call went out for blood donors, and I got choked up by the response. Sailors who didn't even have my blood type were lining up trying to give blood to help me.

FIELD TREATMENT

Here the picture is less unanimous. Some units had physicians and line officers that (1) understood the need for combat medicine, (2) understood the difficulty of providing competent combat medicine in combat, and (3) had the foresight to develop programs to train both their soldiers and medics. Other units did not.

UNDERSTANDING THE NEED FOR COMBAT MEDICINE

In the best of the units the physicians and physician's assistants reported that their job was to prepare their units' medics and soldiers to provide field combat medicine. Initially, the doctors taught the commanders how important combat medicine could be for maintaining combat power. Prior to combat these commanders, staffs, and medical personnel realized that competent medical care was worth the effort and time required for its systematic planning and training. The physicians also taught these leaders the need for continually planning for and practicing preventive medicine.

The battalion surgeons, commanders, and staffs had developed close working relationships.

Once everyone understood that combat medicine impacts on combat power, the physicians, commanders and staffs learned about the difficulties of providing competent field medicine during combat.

THE DIFFICULTIES OF PROVIDING COMBAT MEDICINE

These physicians stressed that providing competent field medicine STARTS LONG BEFORE THE BATTLE, THROUGH PLANNING AND TRAINING. They emphasized that the medical personnel must (1) be where needed, (2) have the proper medical equipment, and (3) have the proper training. Prior to Operation Urgent Fury, these commanders and staffs insured they had competent field medicine by including the medical professionals' ideas during the planning. Thus, these medical professionals insured that preventive medicine and adequate trauma medical considerations were included in both operational planning and field training exercises.

The payoff was in the battle, combat power was maintained. These units demonstrated excellent preventive medicine measures. Just as they had practiced during training missions, the soldiers and leaders slept prior to deployment, during deployment, and whenever possible during combat operations. Leaders, medics, and buddies insured that each soldier practiced heat injury prevention. The soldiers were encouraged to prehydrate when alerted, prehydrate prior to deployment, prehydrate enroute, and to hydrate throughout the operation. Each soldier carried at least six quarts of water and one IV solution. Soldiers who had demonstrated difficulty with the heat during previous training exercises carried additional water and their medics and buddies insured they drank.

In these battalions almost all the company executive officers found water sources immediately upon arrival and insured that the troops were continuously resupplied with water. These preventive measures preserved combat power by limiting evacuation for heat injury to one soldier, who also had a shrapnel wound.

These commanders insured the medical assets would be there when needed. They gave high priority to the deployment of medics, medical equipment, and backup medical resupplies. These commanders had to decide who would jump in on the initial assault, they prioritized their men; i.e., leaders first, followed by radio operators, machine-gunners, medics, and finally, as many infantrymen as possible. During combat operations against suspected heavy opposition, these leaders again placed the medics and the physician assistant on early lifts to insure medical support. These leaders insured not only that the medical personnel would be there when needed but also that the needed medical supplies and equipment would be there. While these medics carried trauma medical equipment (chest tubes, morphine, and IVs) and these soldiers carried critical medical items (4x4 bandages and IVs), in other battalions even the medical personnel were without critical medical items (e.g., no chest tubes or IVs) for days, and the soldiers only carried first aid pouches. The leaders' priority for and consideration of medical assets paid huge dividends in both these battalions when casualties were taken and by preventing casualties. Skilled surgeons, physician assistants, medics, and soldiers were there with the proper equipment and training to provide excellent trauma care when it was desperately needed. Thus, understanding the difficulties of providing combat medicine enabled these units to plan and practice, and that made a difference.

COMPREHENSIVE COMBAT MEDICAL TRAINING

Some of these units developed comprehensive medical training to insure that both their medics and soldiers could provide competent combat medical care.

MEDICS MEDICAL TRAINING

The medics of these units provided excellent medical care during mass casualty situations even under intense stress. They triaged the wounded, performed critical medical functions, (inserting chest tubes and conducting field amputation) and directed soldiers giving buddy aid and self aid. The physicians and the wounded soldiers reported that medics' competence saved lives. As one seriously wounded leader described his own treatment:

I didn't pass out even though I was in bad shape. I had a sucking chest wound and was having a hard time breathing. The doctors later told me that the medic, who went to work right away, did an outstanding job and saved my life.

Why were these medics so competent? The battalion surgeons and the medics themselves attribute it to realistic, systematic medical training.

This systematic medical training included providing all their medics with:

- (1) Off-post medical training, Special Forces Medical training,
- (2) On-post medical training, Emergency Medical Technicians training,
- (3) Systematic combat medical training conducted by their battalion surgeon and physician assistant,
- (4) Experience and training in directing their soldiers in crucial medical skills,
- (5) Realistic medical play during training exercises. They had sent all of the medics to the first 13 weeks of Special Forces (SF) medics training and many to the entire SF medics course. The battalion surgeons insured that the medics attended the post's Emergency Medical Technicians Training (EMT) and that every medic was EMT qualified. One week each month the battalion medical team, surgeon and PA trained all the medics on the types of and treatment of injuries expected during combat.

After the monthly medic's training, the medics trained the soldiers of "their" unit on the medical skills the medics had just practiced and insured that each soldier could give competent buddy aid. Their leaders had included realistic medical play during training exercises.

MEDICS AND COHESION

More than just good care providers, the medics were like old time country doctors, knowing all the men of their unit, the strengths and weaknesses of each, who was having difficulties and how to help. Each medic was assigned to a specific unit and trained with the unit daily. During all field training and live fire exercises they trained with their unit and they fought as infantrymen alongside the line soldiers during training and combat. Wearing no red crosses, the medics, too, attacked the hill, shot the enemy, and also treated their buddies. The troops bonded to and respected their medics, declaring that their medics are the best in any army. They all proclaimed that if they were going to combat again they wanted their medics with them. These medics are outstanding examples of what combat medics should be.

SOLDIERS' MEDICAL TRAINING

Leaders and physicians strongly encouraged and scheduled soldiers to attend the post's Emergency Medical Technician Training. This scheduling, over time, resulted in over half the soldiers in one battalion being EMT qualified. The troops in these battalions were trained to provide excellent buddy aid. Their leaders, doctors, and medics insured that every soldier could provide advanced trauma support; every soldier carried morphine and could give it as well as IV solutions.

When there were casualties, the soldiers provided the CPR, direct pressure, or IVs that were needed. They practiced preventive medicine. They looked after themselves and each other, insured each drank plenty of liquids. They gave IVs to their ONLY heat casualty. Privates told us that

hydrating was important and that they carried and used IVs since learning about the importance of IVs to the British troops in the Falklands.

With this background of training and awareness of the importance of self-help, individual soldiers of these battalions provided competent self and buddy medical care. In a typical scenario, a buddy pulled the wounded out of the line of fire, initiated and continued lifesaving steps until a medic could take over, after which the buddy quickly rejoined his unit which was continuing the mission.

EFFECTS

This level of combat medical training paid dividends to both wounded soldiers and their units. The leaders and soldiers of these units universally spoke of their confidence in the medical competence of their medics and soldiers. One of the troops described a particularly emotional moment:

When the choppers went down, everything moved in slow motion. You can see everything that is going on, your buddies dismembered, (Lieutenant) being dragged off to the side. I thought about going back to see if I could help someone but I decided we had better carry on the attack. . . . I trusted the medics and follow on (soldiers) would take care of my buddies.

Thus they reported that knowing that your buddies and medics were there if needed, helped them to fight through enemy fire.

WHY WERE THESE UNITS READY TO PROVIDE COMPETENT COMBAT MEDICINE?

The line commanders and medical professionals:

- (1) Shared common perceptions of the need for combat medical support,
- (2) Shared common expectations of the difficulties of medical support in combat,
- (3) Had the foresight to develop systematic, comprehensive combat medical training for the medics and soldiers.

Similar to the Israeli Army these units had battalion surgeons who train with them and who are part of the battalions. These surgeons, physician assistants, commanders and staffs, developed common views on the importance of combat medical training for successful combat operations. They all participated in the planning and execution of both peacetime and wartime missions. The leaders realized the impact of excellent medical support on combat power and realized that only through prior realistic training could the medical support enhance the unit's combat effectiveness. Thus, these units repeatedly practiced medical resupply, casualty care, and evacuation. These units also learned medical lessons from others' experience. They learned the importance of buddy aid from recent Israeli

combat operations. They learned the importance of IVs from the British in the Falklands. They dramatically demonstrated that with the proper attitudes toward combat medicine, knowledge of recently relearned principles, the proper equipment, organization, and training, units of the US Army can provide excellent combat medicine.

Unfortunately, not all units involved in Urgent Fury were as well prepared as these. In some units our line commanders and medical professionals:

- (1) Failed to share common perceptions of the need for combat medical support,
- (2) Failed to share common expectations of the difficulties of providing medical support in combat,
- (3) Lacked the foresight to develop comprehensive combat medical training for medics and soldiers.

NEED FOR COMBAT MEDICAL SUPPORT PHYSICIANS

The commanders, staffs, and medical personnel of some units reported that our medical system is not serious about providing combat medical care. They assert that in our medical department "real" physicians spend the bulk of their time in clinical care centers and physicians avoid most field exercises. They assert that most physicians see themselves as peacetime health care providers and do not even see the need for any field training. Many medical battalion personnel who served in Grenada reported that the near absence of contact with physicians and physicians' assistants prior to deployment was the primary reason that they were unprepared to diagnose and treat combat injuries or operate the equipment. The difficulty of learning to use equipment while performing actual combat medical tasks was further compounded because these medical personnel were also learning to work with physicians whom they had never met.

Leaders and medical personnel assert that the medical department and medical centers are run by physicians who are not serious about combat medicine. These commanders, staffs, and medical personnel point out the difficulty they have coordinating with some physicians. They assert that some physicians seem preoccupied with earning additional part-time income ("moonlighting") and seem to discourage interactions with the commanders of both line and medical units. Leaders and medical personnel also assert that getting and keeping their medics trained in combat medicine is hindered by the medical center "attitude" of many physicians. The physicians, PAs, and medics from the battalions with systematic training in combat medicine reported frustration with the post's medical establishment. The medics who had completed the EMT training (OJT) at the hospital. But what began as a good arrangement for both the medics and the hospital care givers degenerated as the peacetime demands of Army medicine shifted the program to the typical "training" medics receive at hospitals, taking temperatures, writing down symptoms, and emptying bed pans.

The demands and practices of peacetime medicine are often projected into the combat situation by medical personnel in garrison. There is

often little appreciation of the number of casualties, the tempo of events, or the need for immediate decisions on the part of the care provider who is often far from his brigade surgeon or a MASH. When examples of medics and soldiers carrying and giving IVs in Grenada were briefed to physicians, some physicians demanded that the use of IVs by nonphysicians be stopped. They explain, with considerable vigor, that giving IVs is a doctor's decision and expound the arguments against civilian ambulance EMTs giving IVs to accident victims. But the soldier who had lost much blood from multiple wounds (including a sucking chest wound) needed the IVs during the FOUR hours it took to get him to the hospital ship. The soldier who lost his legs and went into shock with no physicians or medics nearby needed IVs and EMT trained buddies. When there were nineteen casualties and no medics or medical supplies, EMT trained soldiers, IVs, and other medical supplies were lifesaving necessities. When there were dozens of casualties, the PA and the few EMT trained medics left alive needed and used IVs and EMT trained soldiers to save lives. When the medics quickly went through all the IVs they could carry treating mass casualties, they needed and used the IVs that each soldier carried. Thus, blindly following medical center physicians' guidelines MAY COST LIVES NOT SAVE THEM.

One of the first doctors on the ground asked who is the doc in charge and where is he? The doctor in charge was back in the United States saddled with running his peacetime hospital. As a result the battalion and brigade surgeons were distracted from performing combat medicine by having to educate and argue with much higher staffs on medical policies and priorities. They had to argue about getting critical medical resupplies and treating all of the wounded. Even if the physicians see the need for combat medical support, the line commanders must also see this need.

LINE COMMANDERS

Line commanders contributed to the difficulties of the medical system with providing competent combat medical support. The commanders must know that medical personnel will be needed, with their necessary equipment and supplies. Many commanders felt that they should get troops and bullets on the island and not worry about anything else, like medical support or medical supplies. It appears that some line commanders did not want to take their own organic medical assets because they did not even know they had any. Line commanders left their doctors behind, told some that they were going to the wrong place, or refused to tell their doctors where they were going. The priority on getting the medical equipment and personnel on the aircraft and to Grenada kept decreasing. The medical assets remained at CONUS throughout the time troops were in intense combat. Eventually the medical assets were allowed to fly to the Carribean, but the line refused to let them set up on Grenada. The line violated the doctrine on the use of Navy hospital ships by making them stay on station too long, and increased the probability that ground medical assets would get overwhelmed (as they were). These commanders failed to understand the importance of combat medicine.

Some line commanders and staffs appeared out of touch with the responsibilities of physicians to treat the wounded. By not planning for or allowing medical resupply, the line caused medical personnel to run low or out of crucial medical supplies. This forced critical decisions on who would be treated with what. The doctors had to convince the chain of

command that US doctors and medics should and had to, by both their Hippocratic Oath and the Geneva Convention, treat the wounded Cuban prisoners. Line commanders failed to foresee the impact of their actions on the ability of medical assets to provide competent care.

The line forced surgeons to move their operating room out of the MEDICAL SCHOOL so it could be used by the staff. Within hours of moving out of a clean, well lighted, sanitary MEDICAL SCHOOL, these same surgeons were treating 25 injured soldiers, some dismembered, in the dark and rain, in conditions so poor that the surgeons stopped trying to operate and just tried to keep the patients alive until medical evacuation aircraft arrived.

With few exceptions, the line failed to train their units in preventive medicine. In many units there was no evidence of systematic approaches to prevent heat injuries by encouraging prehydration prior to and during the deployment or rehydration during the mission. Because preventive measures were ignored, more and more soldiers became incapacitated by heat. Some troops even reported that they were not resupplied with food or water for extended periods. Some battalions had so many heat casualties that by the third day the medical personnel had used all their IVs. One such battalion evacuated more than two dozen soldiers for heat injuries in one day; however, that same day two battalions, where soldiers were trained in preventive medicine and encouraged to provide quick treatment, suffered one heat casualty between them. Thus, the leaders of some of the units were proactive and prevented heat casualties, while others were reactive and their heat casualties filled the medical tents.

EXPECTATIONS OF THE DIFFICULTY OF PROVIDING COMBAT MEDICAL SUPPORT

Some medical personnel and line commanders and staffs failed to realize the difficulties of planning for and deploying medical capabilities. At the staff level a number of medical planners did not even know the medical capabilities of the sister services with whom they were working. Although some physicians attempted to find out who and what type of medical capabilities would be available, they reported not knowing the capabilities of or where the ships were. They reported initially having to send helicopters full of casualties to the hospital ships with directions like "they are out there (pointing to the water) somewhere." Physicians reported that they actually found out the Navy's medical capabilities only after some of their troops were wounded and dying. At that point, they flew out to the ships to ask what capabilities were available. This lack of information resulted in seriously wounded soldiers being sent to ships without surgical capabilities and at the troop level, resulted in some medics and soldiers reporting that they did not know the medical evacuation system or MEDEVAC call signs for as long as four days in combat.

Our current medical equipment requires so much aircraft space that the medical assets slated for deployment were continually shunted aside in favor of troops and combat equipment, and almost all of it arrived several days after the main fighting ceased. Our medical planners and leaders must be prepared to send modified medical packages, or risk finding surgeons on the ground with their brigade's soldiers in combat but without their necessary equipment required to make their presence felt. Surgeons did not have the needed surgical equipment. Surgeons had no chest tubes so they had

to use "make do" substitutions. Surgeons had to leave their patients to request desperately needed supplies. They ran out of IVs, were critically low on pain medications and antibiotics--but couldn't get the line to send in medical supplies. Supplies were so short that at times treatment had to be curtailed. Frustrated physicians who were out of or critically low on numerous crucial medical supplies watched as nonalcoholic beer was flown in before they were resupplied.

NO SYSTEMATIC MEDICAL TRAINING

The medical personnel, commanders, and staffs in some units lacked the foresight to develop systematic comprehensive field combat medical training for either medics or soldiers.

MEDICS

Medics who deployed to Grenada who had not received systematic training in combat medicine reported that they were treated as the unit's "bastards," not trained well, frequently assigned to different units, and NOT trusted to do anything but pass out aspirin. These medics who were sent into combat reported that they were unprepared to handle real combat wounds and injuries. (Smith, 1984).

These medics reported their only experience with combat wounds was in training films or in role playing where they would read a tag describing the injury, then verbally describe how to treat that wound. Their physicians reported no doubts about the medics trying to do the right thing but were worried that the medics might not know what the right thing was. Medics reported that their training had principally consisted of classroom presentations to cover the annual requirements with no emphasis on the medics having or developing the needed combat medical skills. They reported having to handle medical situations and treatment in combat that, up to then, had been reserved for PAs or physicians and in which they were completely inexperienced.

Medics and doctors reported that initially some medics appeared to be squeamish about going up and dealing with combat wounds in Grenada. At the extreme, some examples suggest that some medical personnel failed to function. In one example, a medic who had received systematic combat medical training, saw a casualty who had been treated by other medical personnel. This medic sensed that something was wrong, and he checked the entrance wound and found that it was properly bandaged. Upon turning the casualty over, however, the medic discovered that no one had bandaged the exit wound. This medic bandaged the exit wound and started an IV.

In a second example, there were no medics at the site where over a dozen casualties were wounded by aircraft fire. The survivors provided aid as best they could but needed help. When the MEDEVAC helicopters landed, the medics didn't have any medical equipment (e.g. no MAST trousers, no morphine, no IVs, etc.). But what was worse, despite the pleadings of soldiers needing guidance and assistance to treat the casualties, the medics in the helicopters refused to get out and help.

MEDICS TRAINING FOR TREATING COMBAT REACTIONS

These medics would not have been prepared to deal with combat psychiatric casualties if we had had any. Medical battalion personnel reported that they were familiar with the term combat psychiatric casualties but had limited knowledge on how to recognize or treat such cases. Most interviewees remembered having a class on combat psychiatric casualties during advanced individual training (AIT) but could not remember any training on the topic since their AIT. Only one of the 60 medics interviewed had an accurate idea of how to diagnose and treat combat psychiatric casualties. Most recommended removing the casualty from the unit and re-assigning him to a new unit, which is both inappropriate and ineffective treatment. (Smith, 1984). This inability to recognize and treat psychiatric casualties replicated other findings that showed medics and PAs in Europe were unprepared to treat psychiatric casualties (Schnieder, Liscomb).

SOLDIERS' MEDICAL TRAINING

Soldiers who had not received systematic combat medical training may not have the requisite skills to provide needed self or buddy aid. In one example, over a dozen soldiers were wounded by aircraft fire. There were no medics available, and some of the troops didn't know how to help their injured buddies. Luckily one NCO was a Vietnam vet (and not one of the injured). The one veteran NCO provided most of the medical care. There were too many seriously wounded patients for him to handle by himself, so he directed soldiers untrained in combat medicine to do the best they could without medical supplies. Later, while waiting for the MEDEVAC helicopters, the NCO insured that a soldier with a sucking chest wound had dressings over both entrance and exit wounds. He also noticed that one soldier's leg was still bleeding badly and thought that the bullet may have hit the femoral artery. He checked out the wound and provided the proper care. That unit depended on one Vietnam veteran NCO for competent combat medical care. What if that NCO had also been injured?

SOLDIERS' MEDICAL SUPPLIES

Soldiers in some units did not carry the medical supplies needed to provide competent trauma care. They carried only their first-aid pouches, which was not enough. A patient with multiple wounds, including shrapnel sticking out of his neck, grabbed an NCO and pleaded, "Sarge, don't let me die," and then went into shock. The NCO controlled the bleeding as best he could with his field dressing. The casualty needed IVs but the only medical supplies soldiers in that unit carry are field dressings. The soldier who lost both legs also desperately needed IVs, but soldiers in his unit did not carry or use IVs. The battalion's medical aid station ran out of IVs treating heat casualties and soldiers in that unit don't carry IVs. These units failed to learn the importance of IVs to the British in the Falklands and their casualties suffered because of this failure.

SOLDIERS' MEDICAL COMPETENCE

Some units trained their soldiers to provide competent trauma medical self and buddy aid, other units did not. Experiences during this operation demonstrated the medical effectiveness of soldiers trained to provide

medical aid contrasted with those untrained. During one engagement a unit suffered two dozen casualties within minutes. Some of the casualties were seriously injured. Due to the number of casualties the physician assistant and medics quickly became casualty managers. They were busy triaging, putting in chest tubes, and completing a field amputation. As competent as they were, they needed help. One medic asked an uninjured officer who was sitting among the wounded soldiers to help by putting in an IV. The officer did not respond. The medic asked again and still got no response. The patient was in shock and needed an IV immediately, so the physician's assistant turned to the officer and yelled, "Do it." The officer cried, "I don't know how," and hid lower between the wounded soldiers. The PA grabbed the leg of a passing soldier, told the private to put an IV in one patient, then in another. The EMT trained private quickly put in two IVs, picked up his weapon and continued to attack. The officer alternately said, "You . . . are great," and pleaded, "Don't leave me."

SUMMARY

When a commander was sensitive to medical issues, and medical professionals were concerned not only about peacetime but also combat medicine, they put together a fine combat operation. In other units, our line commanders and medical professionals failed to share 1) common perceptions of the need for combat medical support, 2) failed to share common expectations of the difficulties of the medical support in combat, and 3) lacked the foresight to develop comprehensive combat medical training for medics and soldiers. We will have serious problems with combat medicine in future conflicts if we cannot drastically reduce the number of units falling into the latter category.

THE PSYCHIATRIC CARE OF THE COMBAT INJURED
and
CLINICAL DIFFERENCES BETWEEN BEIRUT AND GRENADA CASUALTIES

BY

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Late October 1983 the Marine Corps Barracks, Beirut, Lebanon was bombed and the U.S. Marines invaded Grenada. This lecture describes the services rendered by Consultation-Liaison Psychiatry, Naval Hospital Bethesda to medically evacuated patients and the health care providers.

The outline for these presentations will be:

I. General Topics of Consideration

- A. Patients Point of View
- B. Staff Considerations
- C. Family Systems
- D. Systems Perspective

II. Approach to these Considerations via the Parameter of Time

- A. First Notification Phase
- B. Lag Period Phase
- C. Hospitalization Phase
- D. After-Care/Follow-up Phase

III. First Notification

- A. Planning of intervention
Consultations
- B. Issues of consideration
 - 1. Hospital Acceptance of Liaison
 - 2. Patient evaluations
 - 3. Staff involvement
 - 4. Treatment options
 - 5. Evaluation post-intervention

IV. Lag Period

- A. Psychiatric Staff Preparation
- B. Hospital Staff Preparation
- C. Physical preparation of the Ward
- D. Media considerations

V. Hospitalization Period

- A. Clinical Assessment
- B. Group Treatment Issues
- C. Unexpected Liaison Issues
- D. Ward Staff Interventions
- E. System Considerations

VI. After-Care/Follow-up

- A. Patients Consolidation of PTSD
- B. Debriefing of Ward Staff
- C. Liaison Psychiatry Closure
- D. Presentations and Research

VII. Differences in Beirut and Grenada Casualties

- A. External Stressors
 - 1. Beirut
 - 2. Grenada
- B. Group Differences
 - 1. Pipeline
 - 2. Cognitions
 - 3. Memory
 - 4. Sleep
 - 5. Survivor Guilt
 - 6. Group Goal
 - 7. Public attention
- C. Similarities in Groups

MATECZUN: Well, it's as usual when you first hear about these things. Word comes down, "Something is going on, get your hospital ready." And the hospital runs around doing lots of preparation, and psychiatrists and psychologists aren't really considered part of the planning process. What we had to do was to go in person to the command people in the hospital and say, "We have something that we can do for you." There's a massive amount of denial that goes on about the combat injured. And if you try to approach it on a per case basis, that is if you try to approach each orthopedic surgeon, general surgeon, whatever specialty they happen to be on, you are going to have to convince everyone of them that combat injured probably could benefit from debriefing or post interview. Many of them have the attitude that these people do not need to be seen by any mental health professional. "They have suffered enough already. Why do they need to see you, too? Why do you want to bring these things up? They are doing fine." I don't know how many times I heard, "They are doing fine."

So the way we worked around that was to just go to the command, and the command directed that everyone of the people who came in would have a psychiatric consult. One of the ways that this was a benefit is that there is a lot of media attention that comes about when these people come back to the hospital. In the Grenada/Beirut situation the media did not have a lot of access to any other news items, and especially when you are a hospital in Washington, D.C., the media is a consideration. One of the questions I would like you to consider is if your command asked you which one of the casualties coming in they should pick to be interviewed by the press, what factors would you use to stick someone out there. What questions would you have in your own mind about putting someone out there. What might the person say and how would it affect the command. These are some things that you can use with the command that they are very concerned about, public relations. If you tell them you can help them out, it's going to help you out in getting to the other people.

Another part of the planning phase was where these people were going to be located physically within the hospital. Within the hospital environment there are, of course, two ways that they can be separated. They could be put into all the several services. It could be orthopedics, internal medicine, general surgery, or wherever. There's really not much contact with each other in our hospital set up. And really, not through any planning of ours, but it was fortuitous that all the casualties were not in ICU or any thing like that. They were put on one ward. One ward was cleared out, and they were all brought into this ward specifically designated for the casualties. It was a very good thing, we hadn't planned on. It was probably one of the best things that could have happened. One of the planning things that I would suggest is that if at all possible put casualties into one place together.

HOLMES-JOHNSON: When we were notified of what occurred in Beirut, the whole hospital was concerned, but few of us knew what to do, and very few of us knew how the patients were going to be getting to us. They would have to go to Andrews Air Force Base first. We almost closed down the hospital. Every ward had to eliminate anybody they could discharge from the hospital. They had no idea of the number of casualties. We were all put on alert. The hospital closed down. We closed down one of the psychiatry units, so we went down to just one.

QUESTION: Did you get any information from world hospitals like Weisbaden?

HOLMES-JOHNSON: Nothing, no.

COMMENT: All of the Marines who came to Weisbaden--we had thirty or something like that number--all had psychiatric evaluations. Six of them were identified. We were told to do brief therapy, to help them to deal with their anger, but to keep it light because the Navy wanted to handle it, and the things that we had started would be followed through after we put them on the plane.

HOLMES-JOHNSON: We went to a lot of people in our community who were senior psychologists and experts who had been involved in negotiation, hostage situations and in combat situations. I tried to get as much information as I could as to what we could do, what would be a recommendation in terms of psychological assessment. We started at that time to research the literature on combat assessment.

From the literature we developed that Brief Duration Combat Stress Scale. We knew that Grenada was an acute, brief situation. It was recommended to us to use the Checklist 90. We used the Spielberger State/Trait Anxiety Inventory, Fear of Negative Evaluation Scale, and the Beck Depression Test. We just accumulated a few paper/pencil tests to try to administer along with our interview. We had permission to see every patient medically evacuated.

The Brief Duration Combat Stress Scale (Included here).

MATECZUN: Another thing that you have to consider is the nursing staff. Very few of them, only senior nursing staff O5 and above, have generally had previous experience. When they are on a ward with people coming in, it's a very exciting time. They are all getting ready, and they feel that they are going to be doing a lot, but they are very concerned about how they should interact with these people when they come in. They have their own fantasies about what it is like to be in combat and what these people are going to be like when they come back to the hospital. So I would suggest that some time be spent before casualties arrive (we didn't get the opportunity) in speaking to the nursing staff on all shifts. You have to remember, when you are talking of nursing staff, that they come in shifts.

At Bethesda, we have basically two-person rooms for a whole ward. In an effort to be nice to people, everyone who came in initially was getting a private room. If you went to a private hospital on the outside, they would put you in a private room and all that sort of thing. This is what was going on, and in the staff's mind this was equated with good care. What it really did, of course, was to isolate all these people. And it was not until later on, when we got crowded, that they started putting two in a room. But by then, we had started groups. We had gotten them out of their rooms, and we had reeled them out in their gurneys and wheelchairs and all sorts of things and put them all together. It was probably one of the single most helpful things that we did. When you have 17-year olds and 18-year olds who are injured and who are stuck off and isolated in a ward room, they tend to stay there unless you go in and drag them out. Nurses can be very intimidating figures in their starched white uniforms. Patients

are not likely to roam out in the hallways and try to get together with each other unless you provide the opportunity for them to do it. So the equation of good care with a private room was an assumption that the hospital made.

HOLMES-JOHNSON: Some of our learning experiences took place as we were going along. Yes, we thought it was a great idea that all casualties be together, but no, we didn't have any input about room situations. In one half of the ward were all Beirut casualties and in the other half were all Grenada casualties. There was very little interchange between the groups. We had to work. We had to be up there 14 or 15 hours a day to get people out and about, communicating, or consulting with the nursing staff.

Again, to underline issues about the nursing staff, it seemed like Lieutenant Commanders and above on the nursing staff had had prior experience. They were energized by it. They were involved and committed, and they felt useful again. The lower-ranking ensigns and lieutenants were new to the Navy and had just come from their schooling in Newport. This was the first 6 weeks that they were ever in uniform, and they had never had any such experience. They didn't know what to expect. They were anxious; they were afraid. They were highly charged and committed and wanted to serve well, but we had to intervene at two different levels with the two different nursing staffs, and our communications with each of the two groups would be slightly different.

MATECZUN: One other planning factor before patients get to the hospital is that for a lot of people in the hospital, a lot of demands are made on their time, going out for lab tests or whatever you do while you are in the hospital. If you want to get all patients together, you have to program in time ahead. You have to go to the nursing staff and say, "I don't want anybody anywhere except here on the ward from 1500 to 1630." If that's the way you are going to do it, you have to program it ahead. Otherwise, there are going to be all kinds of tests, and people always up in the OR or something. Afternoons were the best time for us to do things, and if you tell the the staff that, they will do it. And you know, it is great. You put the time into the schedule, they write it onto their nursing plans, and these people are at the right place at the right time. If you don't, you will never get them all together.

HOLMES-JOHNSON: We already had a liaison with the nursing staff, and they respected the time commitment in our work with them, and they were willing to follow our suggestions. But to the patients, we were not telling them what to do. We were asking them. "What is the best time of day for you that we be here?" We are giving them control and taking their answers back and telling the nursing staff what we wanted done. We used two different styles in relating.

REMARK FROM AUDIENCE: It is also very important to have the patients help each other too. We put like patients together, burn patients together, etc. and they were able to reassure each other and at the same time help each other.

HOLMES-JOHNSON: Now we are moving into the real patient-contact stage. In consultation-liaison, we are a training hospital, and we wanted to provide our residents and our interns with an opportunity to learn from this

experience. We had each of them do a psychiatric interview with patients. Our time was involved in hearing the case presented to us, going over all the issues and the complications and making sure what was on the report would not be detrimental to the patient or to the system, and in no way negate what was happening between the patients and their primary caregivers, and not diminish the primary caregiver because they kept telling us that everything was fine with the patients.

The nursing staff was the nurturing, caring style. John and I could have easily been the two who had done the sole interventions and divorced ourselves from our responsibilities for training, but we felt that we couldn't do that. The trainees were as involved as we could have them be. We had to make some decisions about who would do the groups, as the patients need to have consistency. So in that sense, we were the ones to be the intervenors. We did the group as a team and there was a lot of thought that went into the planning for that group experience.

Given experiences after Vietnam and most groups having male group facilitators, we felt it would be appropriate to have co-facilitators. We had a male and a female. Our thinking at that point in time, was that males in a group for a short period of time may have more of a cathartic or freeing experience if there is a woman in the group to provide them the opportunity to work through affective issues faster. An all male group may not do that as quickly.

MATECZUN: One of the concerns that came up on the Checklist 90 was about sexual functioning anxieties, and, of course, the Marines in Beirut had been ready to come home anyway. When Marines are ready to come home, there is a lot of that sort of anxiety. And certainly a lot of castration anxiety after the bombing. That was one of the better interventions we made. When you have women work with the groups, I think it is very useful in a sort of abreaction, cathartic experience. It also gets them used to being out of an all-male environment and being able to talk about these issues with someone else. We can maximize the transference, so to speak, in these kinds of situations.

HOLMES-JOHNSON: So we used the opportunity of a group experience we have already structured through the hospital administration. We had done the individual testing, we had done the individual interviewing, and then we saw them daily in group. And it was a time again to get them out of their own rooms. They were isolated. New people were coming in, and we would daily assimilate them into the group. Unfortunately, there was one person in the hospital who couldn't be moved, so we did the groups in his room with everybody around his bed. The room was filled, but that was the way it had to be so we could include everybody. Even when people couldn't communicate, we still brought them into the group.

MATECZUN: The technique that we decided to use was essentially the S.L.A. Marshall Debriefing kind of a technique. And basically all we did was put people together in the same room, and they did whatever it was that they were going to do. It was the first time that they had been all able to get together and to speak.

We had some thoughts about whether we should put the Grenada and Beirut Marines and casualties in the same room, whether or not it would be

useful for them or not. We ended up doing it because of numbers. I think it was helpful for both groups to gain some perspective on what had happened with each group. We just sat them down and they started talking about each other.

Marines are generally very responsibility oriented, and the officer who was there, who was the most severely injured, sort of started taking charge and going around, and they all introduced themselves to each other. We didn't use the technique of having everyone on a first name basis there. Marines are very resistant to that. I don't know whether they would have tolerated it terribly well or not. We didn't have a lot of time to work with them. We knew they were going to be in and out of the hospital. Our goal in doing these things was to get them to try to deal with some emotional experiences, and we did not know whether it would be something that would help prevent post-traumatic stress disorders in the future or not. It was a concern that we had.

At any rate, they started off with the concept by going around and introducing each other, and then they started going into geographical sorts of things. "Where were you on Grenada? Here is the mound, here is the radio station, you were over here and I was over here. Yeah, I was in this helicopter. Did you guys see this?" That was essentially what we went through at the first session.

The Grenada people, of course, had memories of what had happened and used their time to reconstruct from other perspectives what went on, to try to put things into context. They had, after all, been in a context and been ripped out of it, and they were trying to make sense of it. The Beirut people didn't have as much of a context to try to put things into. They tried to reconstruct things in a different way. A little later on we will talk about what they did.

HOLMES-JOHNSON: It is awfully tempting to describe the differences between the groups, but that's another lecture. In the flow of the experience, the senior person took control. We were kind of hands off and watched the process. We were involved minimally, and they were doing all the talking. They were sharing where they came from, who they were seeing, what was happening to them at that point in time. But the process was mostly information and not very much affect at all.

AUDIENCE COMMENT: I just want to comment about the Marines who were hospitalized in Landstuhl. They were sharing information first in the group, and in fact what happened was they didn't loosen up, they didn't get any affect out until the weekend. They arrived Monday, Tuesday, and a few Wednesday, I guess. The group was forming. They had a party on Saturday night. At that point, when it was supposed to be social and not group, the hostility, anger, and everything else really started to come out. It was a more relaxed situation. What you are talking about here is a real rigid Marine who has control over what he is going to say, to whom he will say it, when and how, etc.

HOLMES-JOHNSON: Along with that process, they were being bombarded at Bethesda with family, with media, with high-ranking admirals, generals, senators and congressmen. There was a lot going on for them.

MATECZUN: Demands made on their time were immense when they got back to our hospital.

HOLMES-JOHNSON: There were frequent telephone call interruptions. They had to put signs on doors. "Please don't interrupt. I want privacy." They felt guilty about that.

QUESTION: What expectations did the casualties have in their perception of egos?

MATECZUN: We approached the group as a voluntary group, that is, we stopped by and saw all of them and said it was a routine part of the evaluation that was going on and that it was part of the full service and medical care that was being provided. They responded all very positively. They all wanted to talk about it individually when we came by to see them and we said, "Well, there's going to be a group get-together, and you are certainly welcome to come." There was no pressure for any of them to come individually. They all ended up coming.

HOLMES-JOHNSON: I think they responded to us by seeing us as an advocate. I think they saw us as someone who could truly liaison and intervene for them, whether it be telling the nursing staff to not let the senator come to their room, or intervening with the other physicians who were so preoccupied with the physical element that they weren't attending to what else was going on. They would pull us in separately, but because we had the group experience with them, they saw us more as facilitators or advocates. We would make ourselves available for whatever they wanted to use us for.

Also, John had a style in which he kind of knew which direction he wanted to go. He wanted the group to make the group decision, so he would say something in group that would make it seem like the patient had said what it was they wanted. "Oh, that's a great idea that you had." He would give subtle suggestions for what would be the next appropriate thing to do. The group would make a group decision, and he would tell the group, "That's real good." Then we would go to the next phase of what was to happen. John and I were continually briefing each other.

COMMENT:....(Unable to understand)

HOLMES-JOHNSON: Yeah, I think you are making two important points. One is that of liaison, and the other is that when we would be approached about things outside the group, we would talk about bringing it back to group. In a way that no one person owned the problem, but it was something that the group could contend with. And then there was validation. The group members would say, "Yes, I experienced the same thing," and then we could get into the feelings about that. In no other arena did they have any permission to deal with feelings, in no other place was it OK no matter what the feeling was.

MATECZUN: They were expected to be good patients and to feel good because they were getting such good care from the hospital, which means you can't be too sad or too angry, of course.

HOLMES-JOHNSON: In terms of group considerations, we had an agenda to help

facilitate some grieving because none of them had had the opportunity to grieve. All of their comrades, all of their peers had been grieving. Those they had been connected with had other ways to grieve because they were not in a hospital. So John said, "What is the best way we can move these people to be able to grieve, so that when they get back to their group, they will have dealt with some of that and not be lagging behind their group members." They are all itching to get to where they wanted to go.

MATECZUN: The problem is that you know they were watching TV and having memorial services all over the country for the people in Beirut, but there was nothing provided for the Grenada casualties. Nobody identified them as being able to go to a memorial service to do their own grieving. It was a real problem, they felt left out.

HOLMES-JOHNSON: We had some members who wanted to be released from the hospital and promised to come back if they could go home and go to those memorial services. You know it was begging, it was bargaining. John went to the chaplains after he had done the subtle maneuvering of getting the groups to say that perhaps they would like some kind of memorial service. The whole Chaplain Service got involved, and they were so thankful that they had the opportunity to provide something. There were just as many chaplains as there were nursing staff, physicians and patients at the memorial service.

We had to have it on the ward and there were some criteria that John wanted met again. And he went about doing that. Things like the tangible evidence.

MATECZUN: Ritually, I think the way that you approach a memorial service is very important. And in a combat field service, there are certain elements that, if you take a look at them, are usually always present. These elements are generally some sort of token that reminds people of what they are grieving for. A symbol. You may remember from Vietnam M-16s stuck in the ground with a helmet on them, a pair of boots tied together, and that sort of thing. I think that that is an important part, that there has to be some symbol they can relate to, and it can't be terribly abstract. We ended up using some helmets with camouflage covers put on them because that was all that was available to us.

Another thing is that there needs to be, I think, two other representatives. One is, if you can get them, a command representative from their service, and the other is the pastoral side of the house. I think that, once you get all those elements together it makes a ritual that facilitates that grieving process. And we were able to get that. The CO of the hospital came. We didn't really have a chance to get the field commanders in or anything like that to help them, but they had seen these other things on TV. So that's the way we suggested that it be set up. We really structured the ritual part of it and then kind of stepped back. We said, "We think that maybe these things would be helpful," and then everybody went along with it.

COMMENT: If you have ever been part of a burial at sea. It's the most moving experience.

MATECZUN: Yeah, I think the handling of the dead is a very important

issue, and I think that we found that handling dead bodies was one of the most stressful things that happened to any of these people. Getting shot was not as stressful as handling dead bodies, and the chaplain had a very important role. I remember talking to a lot of the Marine chaplains in Vietnam, and they felt that a large part of what they did was touching the dead. That people felt much better if they just touched the dead.

QUESTION: Did your group deal much with denial? And then anger?

MATECZUN: Yeah, as we go along we can talk about what the group did.

HOLMES-JOHNSON: When we talk about the differences between groups, we can talk about denial and anger because they were different. But in the grieving process, the cathartic experience of the memorial service was profound for the entire ward and for the nursing staff and for the physicians because they didn't have the opportunity until they got emotionally invested and grieved.

It was so significant that people were lining the hall or the ward until you couldn't get into the room where we had the service. Our first agenda was to first get all the patients in. We were outside, we couldn't even get in. The clergy moved these men towards contending with survivor guilt quickly because they used their own experiences to talk about. They told these men concretely what they were going to be feeling: "What is your purpose to living life?" and "I dealt with that question and do I have unfulfilled expectations? Will I put too much on myself after this experience." So our group experience after that, of course, was solid and had a lot of meat to work with. It was shortly after that they were leaving. It was a pretty powerful time for everyone, and we had the rest of the afternoon, which was very quiet. The other thing that the chaplains did in terms of symbolic, concrete experiences was to give everyone a brochure with the memorial service sequence. Everyone had something they could take with them. Even the people who couldn't communicate were holding onto that piece of paper, and I am sure that when they left the hospital, they took it with them. So it is important to give people that information on paper.

MATECZUN: There are some things we hadn't expected that I would like to talk about briefly. Let me just pose a hypothetical question to you. If someone had committed an atrocity in combat and he reported this within the confines of group or to a nursing staff or something, how would you handle that? How would you approach it? Self-inflicted wounds. As it turned out, a number of people who got evacuated had self-inflicted wounds. The group accepted them, and they didn't press them on it or anything like that. They were just brought in as part of the group and taken care of. They did have more psychological problems with dealing with what was going on, no doubt about it. Handling dead bodies was more stressful than we anticipated. As it turned out, one of the casualties with self-inflicted wounds ended up also having a brief reactive psychosis. This reminds me that it is important to listen to the nursing staff about the patients' behavior on the ward and not just what they are saying or not saying in group. The nursing staff will tell you what is going on. One guy was hiding his used bandages and was paranoid and not eating. It turns out that there was a lot of delusional material underneath it all. What was going on was that he thought he was being poisoned with the food, that

somehow the bandages had magical power in them, and we could read his mind and things like that. Also brought up was one other thing that was an issue, looking back on those kinds of things. He had a lot of female caregivers. There was a female orthopedic surgeon, a female chaplain was seeing him. It was all female nursing staff. He had managed to work it so that it was an all female corps staff.

HOLMES-JOHNSON: And then he managed to work it so that I would be the one that had to go see him. He wouldn't talk to any male and it was interesting. We said, "My God, it's all women that this guy is speaking to." He would have the nursing staff come stay with him and hold his hand by the side of the bed for hours and then when the nursing staff would come and tell us that, we would say there is something more going on here than meets the eye. And then he would be reporting some dreaming and of course, he could only speak to the psychologist about the content of these dreams, so the psychologist would go and listen to the contents of these dreams.

MATECZUN: One of the lessons for me was that if there is anything you are screening for, and you pick up any kind of borderline traits and histories compatible with borderline stuff, I wouldn't put those people out in front of the press. I would also keep a real close eye on them on the ward.

QUESTION: Was that apparently a deliberately self-inflicted wound or accidental mishandling, or a combination?

MATECZUN: He was not awarded the Purple Heart and that was something that had already happened before he even got to our hospital. He had been identified clearly There is always some question about whether it was deliberately self-inflicted or not. I'm not sure whether it was a legal question or if it was ever resolved. It certainly wasn't by the time that they left.

HOLMES-JOHNSON: Along with those kinds of unexpected issues, in terms of the nursing staff, is the issue of hearing the unusual stories and what to do about it. They would be coming to us, and we had to work with them about how they were responding to what they were hearing. Then came their own ethical issues, in addition to helping them, their own dilemmas. Again these were the younger nursing staff that weren't aware that there was no confidentiality. They thought that they could hear what they were hearing in total privacy and total secrecy.

QUESTION: Let me just ask you what your families thought about this total involvement? You were spending about 15 or 16 hours a day in the hospital. How many days was that?

HOLMES-JOHNSON: We worked those hours about a month. It was both a stressful time as you explained. John's married. I'm married and have children. It was a stressful time. On the other hand, it was an exciting time. Because our families felt like they were supporting what it was that we were doing in some way made them more important and valuable. I was able to give it a context for my family. I was able to bring them to the hospital and they could see where I was doing what I was doing. It made it much more concrete, and I was able to go home every night.

MATECZUN: It's also hard for when things are . . . you know in the

magazines and in the papers everyday, it makes it more concrete. This is what we are dealing with and I think it was probably very helpful.

HOLMES-JOHNSON: And that people knew who the people were in our hospital, there was no privacy. They were in the news everyday. They were on television. They were reported in the Washington Post. There were pictures of them everyday. People knew with whom we were working. So in terms of the staff, it kind of did move into that. We were doing a lot of education. We were doing our groups everyday, and we were also doing our nursing groups everyday. Most physicians didn't want to see us so we were doing that as best we could, given the parameters that we worked in. Another issue in terms of hospitalization was the civilians, the Department of Defense civilians, that were brought up from Grenada, not from Beirut. They were patients in the hospital.

Then there were the family issues. We have these people who really were stationed in Camp Lejeune and families from all over the East Coast were coming in. They had to be taken care of. They had to be put up some place. They were coming into the hospital. They were asking for information and we had to help the patients deal with their family issues. Those that were there and those that were not there.

MATECZUN: The single issue that is brought up most frequently in these crises is that the more severely injured these people are, the more their spouses wish they would have been killed. It is inevitable. The harder functioning they were before, the more severely they were injured, the more their spouses are clearly open about telling you that maybe they would have been better off dead. They certainly now have to change their total lifestyle, their total expectations about how much can be achieved in this person's military career. They no longer have a leg, are not going to be able to fly anymore, or not going to be able to be a Marine colonel. What are they going to do? You know these people, all these people were on their way up, and now it is a totally different thing for them, a totally different thing for the family system and I will guarantee you that if we will listen to these spouses, they will tell you that think that maybe they would have been better off if their husbands were dead. This is at first when they are still getting used to what is going on; when their husbands are still brain injured and can't speak with them, can't interact the way they used to; or when their leg is gone and they are at first getting used to that. That is across the board.

HOLMES-JOHNSON: Given, we are talking about the extreme casualties. The families of the minor casualties were totally accepting. It was a welcome home kind of experience. And it was all pleasant. So we were most involved with the extreme, severe casualties. And John had a lot of clinical experience working with the families and he would go. Again his time was involved in seeing the wives one-on-one. There was no way that we could get families together. In that sense, it was divided up. He would see some of the women over time one-on-one in dealing in a liaison sense for these women, and the nurses, and the patients to help them through their grieving for what was happening. He was an alliance to help make some system interventions, how to get this person from this hospital to the spinal cord injury unit somewhere else, that kind of thing. And then, my role was not the physical proximity families, but more the families that didn't come. It was over the phone that then they needed

information and especially with one of the situations with the self-inflicted wound with the brief psychotic reaction. I had to have contact with family because this person was not where they thought he was in the hospital.

QUESTION: During these liaisons and interventions and system areas, did you ever start planning the social work section into your things that you dealt with? That is normal practice, isn't it?

MATECZUN: Yes, it is part of our hospital regulations actually. Social Service is involved in discharge planning.

QUESTION: Did anyone work with the children or was it left to the mothers to try to react?

MATECZUN: Once again we worked through the spouses about the children and their reactions to it. Nobody saw the children directly. There is one interesting thing here that goes on when we are talking about community interventions and people were talking about the newsletters they had started. In the Navy it is usually pretty well set up, when a ship goes out on a cruise, there is a structure that is already set up among the spouses. The Captain's wife is the head of the structure, the XO's wife is there. The Marines are the same way, the Battalion Commander's wife is kind of the head of this thing and they have these support groups going. There is an interesting thing that happened with the Beirut wives. You may recall a few people had gotten killed in Beirut before the big explosion. What would generally happen, they described within our support group, was that the spouses would feel kind of guilty about the other spouse whose husband had died. But eventually these people would kind of go out of the support group. They did not stay in the support group. They would move out. After the explosion, it was exactly the opposite. That is, that the spouses who had survived, their wives found themselves leaving the group because of guilt, feeling bad about having to deal with all these other things. There was a lot of cohesion among the wives who had husbands killed. They stuck together and kind of kept the group going.

HOLMES-JOHNSON: And then the thing that we have been alluding to and talking about a little bit is the media. That was incredible to have to deal with that. It is difficult to intervene. To set some structure and some limitations. Media were always calling. The hospital didn't want to be perceived as not being cooperative.

MATECZUN: Yes, there are a couple of technical issues when we are dealing with people in therapy. How the press affects what you are doing is very important.

HOLMES-JOHNSON: A lot of content in group was in the anger about what they were reading in the press.

MATECZUN: Here is a picture that says, "US pilot lies dead on the beach after his helicopter was shot down." Some of the questions that came up were: "Who the hell took this picture? How much did they get paid for it? Why is Time magazine publishing it?" It was very difficult for group members to deal with seeing this picture in the magazine. Marines had seen the body and had dealt with it. This was one of the first affect issues

that we dealt with in group. The Marine in the group who had handled the body was very disturbed because the body had been stripped and they had taken the boots and that sort of thing. This bothered him more than anything, I think. And he was crying, saying, you know I had to pick up this fellow. The Marine officer was very good about it how he dealt with it. He said, "You know these are poor people in Grenada and a pair of boots means a lot to them." His intervention with that young Marine was very helpful. And then it was only after that, when they saw what happened in this magazine that then the officer was able to move into his own anger about what had happened.

QUESTION: How did the picture get into the paper?

MATECZUN: I don't know, you can call Time magazine and ask them. He was going to, I don't know if he ever did.

PERSON IN AUDIENCE: One of them wrote a letter to the editor afterwards about that.

HOLMES-JOHNSON: The media issues were apparent to us from the very beginning. When they first came to the hospital, there were pictures taken, we were not involved at that point in time. Public relations was involved. Public relations put the first two casualties in front of the camera.

QUESTION: Did the patients have any say?

MATECZUN: Yes, they didn't have to go if they didn't want to.

QUESTION: (Unable to understand)

QUESTION: That is interesting, because I found myself dealing with two casualties whose ship went down in The problem with these two casualties is that they were interviewed the next day on television and about three or four days afterwards they began to realize that . . . and the person who had been responsible for saving their lives and had died in the process is also the person responsible for . . . the ship and they began to realize that perhaps he was going to be . . . before this board of inquiry. And they weren't too sure what it was that they had said in the interview and they were so filled with guilt and anxiety. The idea was to keep that sort of situation

MATECZUN: It is almost impossible as much as I can tell in the situation we were in. We had no control over it and I don't think that anyone could have.

QUESTION: . . . I think that professionally, if these people were touch and go as far as their physical lives were concerned, we would insist that they be interviewed with the same sort of parameter

MATECZUN: Yes, I agree.

QUESTION: I think we had quite a different experience in Vietnam. Our PAO section . . . with the 82nd Airborne Section . . . were very, very . . . in dealing with press issues . . . there was a boundary that was formed around

the division, they were very successful in preventing No soldier, every company commander was acutely aware that if a reporter came floating around . . . that he had better have a public affairs officer with him and the public affairs officer from within the division to approve anything they said . . . we did it with family support groups, anybody who reportedly was called a family member . . . we would act as a barrier. Simply because we were aware of what reporters would say and the impact that would have on the troops I meant to ask, I don't know whether you guys have a PAO section or not, but if you do have a PAO section, their mission in combat as they set up their division headquarters is to be acutely aware of what goes out of the division in terms of information and how things are presented to the media and to act on those things.

HOLMES-JOHNSON: It was our public affairs people that were involved as best as they could be with the media and made those kinds of interventions and were there when the first two people communicated with the press.

MATECZUN: In fact, all the press have to come through PAO section to go into division areas.

HOLMES-JOHNSON: It seemed as if the media people were on the wards almost every hour of every day. I mean PAO was there as much as the physicians were there. Before I came here, I went to the PAO office at the Navy Hospital at Bethesda to get all the public release information that I could. They gave me the file. You have the file.

COMMENT FROM AUDIENCE: Things may be different, of course, overseas, but we had much better control over the press and they had to go through the public relations people. They were not allowed on the units. Before anybody was interviewed, the hospital commander asked the psychiatrists following that particular patient if it was in their best interests, and we only had one difficulty, and that was one guy whose Congressman had come. The patient said that he wanted as a friend of the Congressman to go ahead and grant the interview. He did and after the interview, the patient became tearful and said, "You know, that guy doesn't care about me as an individual. He only wants to be reelected." He was angry and we dealt with that. But we had much better control apparently with public relation issues. We just wouldn't let them into the hospital.

MATECZUN: There didn't seem to be as much control in our hospital. It just happens to impact on people that you are dealing with.

HOLMES-JOHNSON: We've talked about the hospitalization phase, and then we talked about what we were going to do after they left and how they were going to handle the situation. We tried to give that some forethought and we've given it a lot of afterthought. We hoped that the group intervention would help; however, we had no way to formally assess if it did. The idea was to prevent people from developing post-traumatic stresses. We saw a couple of situations where I think they probably were helped in terms of intensity and duration of what they would be experiencing. Some did come back and let us know what was happening for them.

MATECZUN: Essentially, some people tended to consolidate into an acute post-traumatic stress disorder picture in about seven weeks from the Beirut

situation. We had no way of judging, of course, of whether our intervention helped this, facilitated it, possibly changed somebody that was going to be a chronic picture into an acute picture, or what. But the ones that did, tended to develop it in about seven weeks, which is an interesting time period. Also then these people were facing having to go home. The Beirut people had a lot of calls. Every place where they were flown wanted to have a parade for them. They were getting letters. An interesting thing was the fact that letters would come to the hospital anonymously to people.

HOLMES-JOHNSON: And that was one way that we could deal with the sexual issues because a lot of women would write to these guys, so we in a group could deal with that. "Oh, is she ugly, is she good-looking?" "What do you want to do with her?" "Do you want to pass her own, she's too old for you." Those were the kind of statements made and discussed. We could deal with that just because of the mail that they were getting which did promote group process.

MATECZUN: It was a humorous way to deal with sexual issues. It was very helpful to us in group.

QUESTION: Did many children write? This is what we experienced, that for every adult there must have been about twenty children. Of course, we got the letters at sea. We felt a tremendous commitment to answer each letter.

QUESTION: . . . at least in Germany, the hospital walls were covered with cards and letters and posters . . . also from the local school system.

HOLMES-JOHNSON: Moving toward staff issues--after care--after the patients left. There was a let down. You know, we are not important anymore because that is what made us important. Now we are going back to just treating the regular patients. So after the holidays and right after they left, we still maintained some contact which we gradually phased out. The ward staff had some difficulty because it stayed the same, but the patient flow went back to the routine patients. We have had to deal with some of the nursing staff in particular. There was one of the nursing staff that switched to psychiatry. She got out of that ward and went over to psychiatry, and we have been able to have continual contact with her. We had to deal with those nurses who were told "war stories" more than the others because of what they were hearing.

MATECZUN: Yes, we had to debrief all of them which was helpful. It really is a sense of letdown. The other issue that came up is that out of the hospital and in the Navy, we are called, Mobile Medical Augmentation Readiness Teams. These are like surgical teams in their support groups that go out to the ship and to the small hospital and deal with the casualties that are coming through in a triage kind of a sense, moving them out. Again, it is the first time a lot of the younger people handled real battle casualties, and they were affected by it, these 18 or 19 year old corpsmen. This is a place that I feel we were unsuccessful in really dealing with the hurt in a kind of roundabout way. There were three or four of them that had been asking to see someone. They worked in the emergency room. We tried to set that up through Nursing Services. In the Navy, the enlisted come under the Directorate of Nursing Services. They

don't come under us, we can't just call them. So we went to Nursing Services and said that we would like to talk to some of them if they wanted to talk with us. And we got some assurances from the top that it would be all right. We set up some times, and no one showed up, not one person. I think what happened, looking back on it, was that somewhere along the line of that chain, there was a disruption, much as there would have been with these other people saying, "They don't really need to talk with anybody. They have done enough. They had seen enough. There is nothing wrong with them that time won't take care of. They can go out and get drunk. That will take care of it." We did not have one of these unmarked team members, in fact there was kind of a barrier. I would suggest dealing with them directly is the way to do it rather than the way that we approached it. If I were doing it again today, I would seek them out individually. I would seek them out because this other way just did not work within the system.

HOLMES-JOHNSON: In terms of our own closure with liaison psychiatry, remember I told you we were doing a lot of training, so it was a time in which our interns and residents were moving out of psychiatry liaison. But while we had them there, we wanted to go over with them what was happening to us. We would debrief them along the way as to what the group process was because they couldn't be involved directly. They did know who the patients were, so they appreciated the processing. We would do that the next day at morning report and talk about the group process. John and I were support systems to each other. You've heard about what trouble some of the patients had with being raked over the coals in the press, and John had his own problems about that. He would come in everyday angry about what he had read or what he'd heard because he closely identified with some of the patients. In terms of our own eventual debriefing there are two things that need to be mentioned: that within the Department of Psychiatry, we were given independence. We are just one division within the department. Our department members, I think, were a little bit jealous that we were getting all the attention and all the visibility in the hospital and they didn't have anything that they could do to help. I think that that was part of the problem. We were kind of isolated and may have told ourselves that they really didn't want to hear all the things that we were doing. So we didn't seek them out as a support system, but we became very protective within our own self-contained unit. These were our interns and our residents and they were going through this experience with us. Several months later when other people wanted to get back into our system and get some information from us, we had to reconvene as a unit. Damn, we weren't going to give them any information. They hadn't experienced it with us, and now they wanted to know what we did. So we in the group were being very passive aggressive. We decided we were going to hold onto our information, and we weren't going to let anyone else profit from it. We were then amused at what we were doing, but that was part of our own gaining some closure.

QUESTION: Some of the comments from the audience sound as if the people from Lebanon had some treatment coming through Germany. Would there have been an advantage if the patients receiving treatment had been coordinated so that there would have had some sort of a sequence?

MATECZUN: I think one of the most important things that we found out was that, each day through the evacuation process these people had immense separation anxiety. It doesn't matter where they are; they don't

want to leave the battalion aid station. They feel, "Hey, I'm alive and I'm here and if they move me, maybe I'm not going to be alive by the time I get to the next place." If they are out on Iwo Jima or they are out on a plane, they don't want to leave. The ones who came through Germany said, "We didn't want to leave Germany." Once they were at Bethesda, they didn't want to leave Bethesda. It creates immensely anxiety provoking situations for them to move. I think that intervention is very useful to help them deal with separation. None of them wanted to leave. I'm not sure if it's a real problem within the medical evacuation system.

HOLMES-JOHNSON: And we are talking about different services. It probably would have been better for the caregivers in Germany and the caregivers in Bethesda to have had some communication.

MATECZUN: We should have just called each other, right? (Laughter)

QUESTION: One of the interesting things about staff debriefing when it is all over with, supposedly at the direction of someone in the Department of the Navy, we were under instructions that the Marines would be seen by no PFCs, no psychologists, no social workers, only by psychiatrists. And so the psychiatrists divided up and went out to see them, and this caused all kinds of heartburn. It was the normal split of disciplines which we struggle with constantly. We ended up doing a variety of things including having psychologists who were interested come along with us in interviews and stuff like that. But this is a real problem for us, and I'm not sure who made that decision.

ANSWER: I'll tell you a good way to get around it. Ask for it in writing.

COMMENT: Certainly, I think it is probably a worthwhile issue because there are Air Force, Navy, and Army here. It was interesting from my perspective, trying to get to talk to the Marines who were in Europe. I had to go through the medical camp headquarters which was Army before I could do anything else. I had to go through UCOM Headquarters at Stuttgart. So I called the senior medical service officer there who said, "I'll put you in touch with our Navy liaison commander." But anyhow, nobody was talking much to each other and everybody was trying to get the system to work so fast, to do their thing and to get credit for it. Everyone was concerned with whether or not they were going to get the credit. This is a really serious problem. And the guys coming in did not benefit from it. For the Marines coming in, there was some confusion and delays in terms of getting them out and around and where they belonged and getting treatment. We really don't talk, we don't coordinate, and we tend to play our interservice rivalries. Whoever said, "Wouldn't it have been better to cooperate?" It would have been a tremendous help, I think, for the guys in Germany to have had some preparation when they got back to wherever it was. Some of the guys that left Germany went directly home to Camp LeJeune, and some of them went to Bethesda. Some of them were going to other hospitals, not major places. They were trying to get them home or near home. Some of them that weren't so bad. It was really very confusing.

HOLMES-JOHNSON: We need to make some closure to this and take a quick break, but in terms of our own debriefing, much like Dr. O'Connell, we find presentations are helpful. We each followed up our intensely charged time

by being asked to make a presentation in two different locations. In our preparation for those presentations, we were able to begin to talk about it. Again to make some sense of what happened, to give more meaning to ourselves, to what it was that we did. That was helpful for us to get some more closure to what happened and to learn from the experience, then continue to talk about the research component or what there could have been done had we had more time. We didn't get all the psychological instruments assessment from every patient. We didn't have enough data to do any statistical analysis on, and we felt like it was a lost opportunity. At the same time, we were trying to collect what we could.

MATECZUN: It's difficult. These things happen, and you are not really prepared to do both clinical issues and take care of research issues at the same time, trying to get them both on track while you've got incoming casualties. We couldn't do it. Well, we didn't. I don't know if we could have or not. We ended up not getting both of them done. We sacrificed the research issues for the clinical issues.

QUESTION: I noted that we are . . . time imprints and we haven't followed it yet. From Lebanon to Bethesda, you know, it is not necessarily just across the street. Especially, those Marines that tell them, I want to stay near my unit.

MATECZUN: Yes, we'll talk about some of the differences in casualties.

REMARK: I think one of the differences is that you all are not talking about psychiatric casualties, you are talking about intervention with wounded people. That is a bit of a different issue, nobody as far as I know, in the somatic world, is preaching . . . because most somatic casualties are a loss as far as unit effectiveness goes. I was struck also with the differences there would have been between what you all did, the tremendous intense dedication of a month of your life, and suppose it was a two-year war? You all could not function at that level and even the organization would have to pull up its socks and help with augmentation of personnel or with some physical . . . or something. You guys would be burned out

REMARK: Within the context of this Army Systems Program Review, the medical wound casualty side of that called for triage as far forward as possible and for those who are not going to return to duty in 30 to 60 days to be evacuated back as soon as possible. But they are talking about literally a two-line system, and as early as possible you set them into two separate hospitals, two separate plate lines, two separate transportation systems. Those who can return to duty, will be kept as far forward and will be treated eventually by the same principles as combat psychiatry . . . whatever surgery and internal medicine they need. The others are taken to tertiary care major medical centers, the large training hospitals, primarily. There are actually four larger ones within the Navy system.

HOLMES-JOHNSON: We saw some external structures between the Beirut and Grenada casualties that we needed to be consciously aware of. The Beirut situation was the more chronic. They were there for months, so it was long. It was very different from Grenada which was an acute situation. Beirut Marines were being shot at. The Grenadian people were in a more

active position. In Beirut, nobody understood why we were there exactly. There was some confusion about that. "What was our purpose, our mission?"

MATECZUN: These are the same people in different situations. These are Marines, very aggressive personalities. In one situation they are put in a defensive holding position; and, in the other, they are in an active offensive position.

HOLMES-JOHNSON: We came up with seven distinct differences from our group experiences with them. We had to deal with them as a group. Never in one's lifetime would you think that you would have both situations in one ward. There was the same group of people, Marines, same ages, same socio-economic backgrounds, same sex, all those things the same, but two distinct life experiences and what they brought to that group experience. So one of the big differences was memory.

MATECZUN: In the groups when these people attempted to reconstruct what had happened to them, they had to take different approaches. The Grenadian casualties reconstructed again by going around and finding out where everybody was, what they had done, and asked everybody what had happened after they had gone. Those sorts of things. They were able to do that. Within the group they accomplished that goal. They found out a lot about what had happened after they had been shot and had to be evacuated. They reconstructed this in their heads. There probably was a change. Their memories had changed by that time. But they reconstructed it to the best of their ability. This is now a week down the line.

HOLMES-JOHNSON: This was an important process in the group. Just the ability to do that was important for them because they could see the differences in Beirut. Beirut could not reconstruct with them. They had the experience happen to them while they were asleep and many of them weren't conscious until Germany. So there is no way that they could account for what had happened. They watched the Grenada people being able to say, "I was here. I did this. You did this" In Beirut they were saying, "I don't know what happened."

MATECZUN: They passed around lists. Some of them got lists from the liaison officers, and they would go around to the others and say, "Look at the list." They would compare them. They had different lists and what they tried to do, the primary concern, was to find out who was dead and to remember them together. That was what they wanted. They did try to put things together and they would talk, "Where were you in the building and where did you end up? How far were you blown?" And that sort of thing. But there is a totally different kind of reconstruction going on from the Grenada situation.

QUESTION: Did you experience--you haven't talked about it so far--any jealousy between the two groups in the sense that Marines in terms of the function of the mission are to be combative and to shoot and to kill and to be aggressive. And the two groups were totally different in their mission. Was there any jealousy between them?

MATECZUN: It was overriding that they were Marines. They were very supportive. They helped each other within the group.

QUESTION: Did you see a status difference? The fact that one was offensive and the other defensive posture?

MATECZUN: It started out that way in the group. The concrete expression was that the Grenadian people were the active ones in the group the first day. The Beirut people just sat there. Actually, it was the higher ranking Marines that had to draw them into the group. Once they were drawn in, those differences disappeared.

QUESTION: How many patients are you taking about for each group?

HOLMES-JOHNSON: We had a total of 25 patients, and there were more from Beirut than Grenada.

QUESTION: In the Combat Casualty Care Course we had about a month ago, we had a Marine that had been in Beirut and also had been in Grenada. I just wondered, had any of the people you had from Grenada had previous experience in Lebanon?

HOLMES-JOHNSON: No, as a matter of fact, the Grenada people were planning to go to Beirut, but not the reverse.

MATECZUN: They were a replacement battalion en route to Lebanon. None of them had been there before.

HOLMES-JOHNSON: Another difference was sleep. We saw that the Grenadian patients and the Beirut patients had different problems with sleeping. That was brought up in the group and individually. The Grenada patients on the Symptom Checklist 90 responded differently. Information was that the Grenada patients had problems with dreams and nightmares about killing. They were the more aggressive, and they said they were thinking of dead bodies, touching dead bodies and killing people. The Beirut people had problems going to sleep because their experience happened to them while they were sleeping, and they were very fearful. They would play possum, act as if they were sleeping to the nursing staff, and not sleep.

MATECZUN: This was compounded by the fact that they had a considerable number of time zones that they had crossed, and we are not sure what that meant.

QUESTION: It is interesting that . . . touching dead bodies . . .

COMMENT: . . . touching a live enemy than a dead enemy . . .

MATECZUN: These were, however, our own dead.

COMMENT: I sent out a questionnaire when we brought the bodies back from Guiana. Sometimes it was . . . exposure on that. I remember hearing that the Army people that went in, brought the bodies out, had a party, and burned their clothing.

MATECZUN: These are emotional effects on Air Force personnel recovering or identifying victims from Jonestown. I tell you if I were going to design a combat stress course, I would put handling dead bodies high up on the stress rating.

COMMENT: One person in Grenada that we interviewed stopped functioning for 24 hours. He was a medic who functioned the whole time under fire who was only going back and picking up the pieces of the bodies of his fellow medics. He stopped functioning. Actually, it happened at the same time the other medic got a silver star, and the evaluation was that this guy did as much or more, but when his superiors saw him break down and stop functioning, they did not give him an award.

QUESTION: This idea of touching the dead fascinates me. What the differences might be between those who, in a kind of phobic way, avoided having contact with the dead, looking at the dead, thinking about the dead, touching the dead bodies, compared to individuals who did do that, handled the reality of it. Do you have any ideas about what was the state of those different people? Or if there were differences? One of the things you can do in combat atrocities is deny them, look the other way, not have any contact, not think about it, avoidance behavior. That might be the outcome of that kind of behavior rather than really dealing with it.

MATECZUN: Let me jump in there. There was very modest literature on this as I found. It is funeral director literature on the tremendous ambivalence we have toward bodies in this society. On the one hand, they are loathsome, they are the stuff from which horror movies are made. And on the other, they are to be honored. They will be handled with respect and distinction. And one of the things that happened in the disaster with the troops where most of this comes from, is that when you go out where the bodies are tangled up in trees, buried under mud, and rolled down the river, you find them in all sorts of horrible positions and you sort of have to get them out in a hurry. I've had to do that in picking up after aircraft accidents. You've got to go in in a hurry and get the bodies and stake them out because those things have to be done. So there is this "grab and run" sort of thing and the further back you get from that, the more circumspect one becomes about handling the bodies. At first you sort of pile them on the trucks and drive them, (you have seen the pictures) and then later they will be handled in bags or treated as individuals. Finally, you get back to the flag on the casket and people standing at attention, etc. So there is this tremendous polarity in which they are supposed to be loathsome or respected. When I think of this poor 19-year old kid that is confronted with this philosophical issue in the heat of battle, my heart goes out to him.

REMARK: I saw in Vietnam another parameter. What about the bodies that had already stiffened? It seemed to be much more upsetting if they had to hold someone whose body had already stiffened?

HOLMES-JOHNSON: Another difference that we found in our group was survivor guilt, whether or not it was present.

MATECZUN: Those who had been to Grenada had less survivor guilt at the time. The Beirut people already had survivor guilt, no doubt about it. Group goals, the Grenadan soldiers wanted to get right back to their unit which was going to Beirut. These people had high morale. They wanted to join their unit; they wanted to go to Lebanon. They were ready. The Beirut victims wanted to go home. Once they got there, they wanted to get away from home. We had a lot of these guys on convalescent leave for 30

days. They went but they could not stay home for 30 days on convalescent leave. They came back weeks ahead of time so they could go back to work.

HOLMES-JOHNSON: But in the group experience, the Grenadian casualties were excited. They were high before they ever got to Grenada. They were on their way to Beirut. That was a nice kind of excited energy. The Beirut group was in the situation for such a long period of time that they were tired. They were drawn out. They had a different form of excited energy and that was from planning to go home. A lot of that had to do with sexual issues. They were looking forward to seeing the women again, girlfriends, their cars that they had loved. All the things that they were going to reconnect with. And once they got to us, then they had to deal with whatever physical problems they had and how would that affect their functioning at home. They were also the excitement about returning home because of all the attention that they were looking forward to. It was after they were home that we had the other problems. But during the group experience it was very different.

MATECZUN: The Grenadian casualties were definitely embarrassed by all the public attention. They did not want it. They did not seek it out. They didn't want their Congressman to come and see them. They didn't want anybody around interviewing them. They thought that they hadn't done all that much. That was the way they put it, and they couldn't understand why they were getting so much attention.

HOLMES-JOHNSON: They were comparing themselves with the Beirut people. They were saying, "I was only there for a day, or hours. And you were there for so many months in Beirut. Look what happened to you. Why am I getting all this attention, why are they interviewing me?" There was that kind of difference.

MATECZUN: The Beirut people were really hot about this. They wanted to go home and to have these parades. They actively sought it out. They wanted the interviews. They really didn't have much problem with it until long after they got out of the hospital.

QUESTION: Oh, they were embarrassed also, but they still wanted the attention.

MATECZUN: They didn't think so much that it was a big deal, but they liked the attention and the Grenadians didn't. They were about the same, yes, saying, "Yeah, we didn't really do anything."

HOLMES-JOHNSON: They were really looking for the attention, although when they compared themselves to the Grenadians, they didn't feel they had done the same thing. There were differences again between what you actually did and the attention factor. Like contrast.

QUESTION: Did you notice any rank difference between these two groups? I didn't see that, I only saw a couple of the seniors. They seemed different from the juniors.

MATECZUN: They handled it better.

HOLMES-JOHNSON: Their past experiences helped them to handle it better.

MATECZUN: They were willing to put up with a lot more stressors for a longer time than some of the younger enlisted folks. They were willing to deal with the media and handle all the phone calls and talk with all the admirals that wanted to call them up. You know, their old mentors from the Academy, etc.

HOLMES-JOHNSON: There are two more differences that we saw. One was the effect of the pipeline experience which affected the group experience. That also had to do with the memories. Some of them interrelate, but Grenadian casualties again were very aware of the sequence of when they were picked up in Grenada, when they went to the ship, when they went to Roosevelt Roads . . . how they got to where they were with us. They knew the pipeline and talked to people all along the way. That was in their awareness. But the Beirut people weren't so aware and the pipeline factor, coming from Lebanon in hours, affected their sleep, as we already said. They weren't aware of the process, so they had a different experience. They didn't know how long it took to get to Germany. Some didn't know how long they were in Germany. There was a time distortion in the process to get to us. They lacked information. They could only again get it through other people. That changed the quality of the interaction of the group as to how they could communicate what was going on. Another group distinction was cognition and their thought process. How they were doing. Again we got some of this validated by the System Checklist 90. In the group experience, the Grenadian casualties were talking about the handling of the bodies and the killing experience, the aggression that they had, the sense of excitement with the aggression and that hormone rush that they were getting. It was a thrill to them and they could talk about that. They could also talk about the other side, when the thoughts came on and they didn't want them to be there. How that was affecting their relating to their families and their parents and the nursing staff. "Am I going to be OK? Will it go away?" Those kinds of intrusive thoughts. Then they would have to talk repeatedly. That is why they enjoyed the press, embarrassed by it and didn't want to have to talk about it because they were having the intrusive recollection. They didn't want to keep going over and over it again. For a couple of people, the higher ranking, it was getting them somewhat of a closure and cathartic experience to rediscuss it, but not to the enlisted, I don't think. They didn't want to have to do that, it was too bothersome. But to themselves, they would recount what happened, and to us they would discuss it again.

MATECZUN: Just one comment about the cognitions. These were the unconscious people from Beirut. They were taken out. The corpsmen and others who had to stay there and handle the dead bodies did have these kinds of experiences, as it turned out that was very few of the total number of them. So they did have them, if they were conscious and awake during that period of time.

HOLMES-JOHNSON: Those are some of the differences that we saw. And some of what your experiences were with them in Germany. We had no awareness as to anything of that. But you can't just look at the differences without looking at the similarities. And so we also found similarities.

MATECZUN: . . . during the groups that we did run, this is the way that it turned out. If you let them go kind of naturally, there is a

reconstructive experience. There is no initial attention paid to the grieving process. I think that you really need to direct attention to this, otherwise it is not taken care of appropriately. They will skirt it and by-pass it. During a short period of time, they are just not going to deal with it unless you kind of bring some attention to it. They are very cooperative in the hospital of demands made upon them, and you have to be an advocate for them within the hospital and essentially tell people to back off and leave them alone and limit the amount of demands made on their time. Get them out, get them used to not being in such a passive position and that sort of thing. These people are always very accepting of each other. There is no rejection if they are in the hospital. We even had one poor fellow who was one of the honor guard when they were bringing the bodies back from Beirut. He fainted. He was in with the other casualties and they were very accepting.

HOLMES-JOHNSON: The group wanted to take him in even though he couldn't talk because his jaw was wired and even though he wasn't involved. They felt bad for him.

QUESTION: Did you have any psychological casualties, anyone who was not injured in either one of those operations?

HOLMES-JOHNSON: None to us.

COMMENT: Just a couple of things, one is that we experienced, particularly I experienced, a little confusion with Beirut. I was also sent to triage the guys who came off the planes. This produced a lot of confusion on my part, because the same guy that I'm talking to today about interpersonal issues is concerned about going back to his girlfriend. It's the same guy that yesterday I was worried about whether he had a cervical fracture. It caused a lot of role confusion in me, and I think also with the patients as to what my role was there. The other thing I wanted to say is about a sort of combat psychiatry principle. There was one guy who adjusted very well, I thought. At least for the brief observation period that we had in Weisbaden. Apparently, after the explosion, as many people as possible were brought to triage areas prior to being further triaged and moved out. This guy had been injured (he had a piece of his ear blown off) but was going around taking care of his buddies and was very aware of the good that he was doing. Finally, a corpsman said, "Oh, no, you are injured, too, and we've got to take care of you." All of the survivor guilt, etc., was handled much better because at the triage point he was helpful to his buddies in doing everything that he could. He really adjusted much better because of that and I think we need to be mindful of that. If we can utilize people, we should.

HOLMES-JOHNSON: Quite literally, you did, and we tried to have them help each other psychologically as best as we could through the group. The group members that were helpful to the other group members felt better. When we did get two into the room, though, they did get to be a little bit more helpful to each other. That developed some cohesiveness for those twosomes.

COMMENT: We found it very important to try to keep them together with the group. They were a group because they had been through this experience. They were also Marines in an Air Force hospital, so they were a very

distinct bunch of people. We had a group of Marines from a large bay and I think that they fared as well as anybody else. I remember one poor guy that was in the ICU and was isolated. It was helpful for us to arrange for some of his buddies to go visit him. There was another guy that had a bunch of orthopedic problems and was really all trussed up with counterbalances, etc. It was very helpful for his friends to get to come in to see him. Many people's initial questions were, "Who is still alive? I remember seeing this guy down here. Is he still alive?" It was very reassuring to them to make contact and find out who was alive and who wasn't.

COMMENT: To reinforce that, I went from Landstul to Frankfort with the 97th and talked with a couple of people over there and when they saw I had come from Landstul, they said, "Who is over there?" Nobody had bothered to tell them. And it turned out I talked to the only two surviving members of a squad. One was in Landstul, the other in Frankfort. I was the only one that told the one in Frankfort how the other guy was doing.

COMMENT: Another practical issue that came to us, because we were dealing with the enemy to a great extent initially . . . our own people receiving casualties A group of Argentine Special Forces came and the senior member . . . was very emphatic that these should be kept separate. I was caught up in my ethical dilemma of recognizing that they needed to get together. At the same time, of course, I could see that for tactical reasons they should be kept separate. But I rationalized this away by saying, "Well, now they are in a hospital situation, and they are going back into Geneva Convention Red Cross control." But I actually had to pull rank on this officer and say, "Look, this is what is going to happen. They are going to keep together." A small point.

MATECZUN: Maybe if we could turn the tape recorders off.

BRIEF DURATION COMBAT STRESS SCALE

- 1) Were you involved in the assault phase of an operation opposed by enemy forces? ☐ YES ☐ NO
- 2) Did you pilot or were you aircrew in aircraft which was fired upon or engaged the enemy? ☐ YES ☐ NO
- 3) Were you part of a land or naval artillery unit which fired upon the enemy? ☐ YES ☐ NO
- 4) Did you receive incoming fire from enemy artillery mortars or rockets? ☐ YES ☐ NO
- 5) Did you encounter mines or booby traps? ☐ YES ☐ NO
- 6) Did you receive sniper fire or sapper attack? ☐ YES ☐ NO
- 7) Was your unit engaged by guerilla troops (Not uniformed)? ☐ YES ☐ NO
- 8) Was your unit engaged by uniformed enemy forces? ☐ YES ☐ NO
- 9) Did you see Americans killed or injured - or did you handle their bodies in the field? ☐ YES ☐ NO
- 10) Did you see enemy killed or injured - or did you handle their bodies in the field? ☐ YES ☐ NO
- 11) Did you kill anyone or think you killed anyone? ☐ YES ☐ NO
- 12) Did you sustain injuries requiring medical evacuation? ☐ YES ☐ NO
- 13) Did you provide care for the injured? ☐ YES ☐ NO

Adapted by LCDR John Mateczun and
LT E. Holmes-Johnson

OBSERVATIONS ON THE RETURNING IRANIAN HOSTAGES

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On the fourth of November 1979, the American Embassy in Tehran, Iran was overrun by radical students who supported the new government of the Ayatollah Khomeini and demanded the return of the ailing Shah from the United States. One hundred prisoners, including sixty-three Americans, were taken. Four hundred and forty-four days later, on the twentieth of January 1981, the final fifty-two hostages were released. They returned first to the U.S. Air Force Hospital in Wiesbaden, West Germany for medical and psychiatric evaluation, "decompression and decathexis" prior to repatriation. As a member of the hospital staff, I was privileged to be a part of the evaluating team. The following are some of my personal observations on the returning hostages.

Before proceeding any further, I would like to explicitly state three caveats. First, while I came to know several of the returnees, my knowledge is limited. I was excited and relieved at the release of the hostages. I was caught up in the spirit of history being made. As a psychiatrist, I was profoundly interested in their captivity experience. Eagerly, I spent long hours on their unit and the hostages were, by and large, eager to talk, anxious to share their experience with others. Despite the intensity, our time together was much too limited. Much of the time was spent in briefings and debriefings, getting haircuts and clothing, celebrating their release and visiting high officials, such as Mr. Vance and Mr. Carter. The time was insufficient to get to know very many, very well. All of my observations and impressions must, therefore, be treated as tentative.

Secondly, I was only a small part of a much larger evaluative team operating under strict guidelines from the Department of State. State Department mental health personnel made their leadership clear from the outset. Diagnostic impressions were to remain tentative pending more prolonged observation and care in the Continental United States. Physical examinations and psychological interviews were to be conducted using standardized procedures and structured formats. Psychological testing and even physical studies were under the direction of State Department personnel. The purpose of the Wiesbaden experience was to screen for emergent problems, and also to allow a period of decompression and decathexis. As one psychiatrist pointed out, "They ought to be allowed an interim where nothing is expected of them. . . . They should be allowed to emerge from all this on their own, at their own speed." Rather than providing definitive diagnosis and treatment, Wiesbaden was, in many ways, that interim prior to repatriation.

Finally, I would point out that one's response to stress is also often related to demographic variables. Military prisoners may react differently than civilians, men differently than women, officers differently than enlisted, etc. The Iranian hostages were a varied group of people. Two were women, the rest men. Their ages varied from 21 to 65. About half were married, about half were single. Many were career diplomats or Department of State personnel. Nine were U.S. Marine Corps guards, six

were Army, three were Air Force, and three were Navy. Of the military members, thirteen were enlisted and eight were officers. One was a 47 year-old, Los Angeles entrepreneur, in Tehran on business. He just happened into the American Embassy immediately before the takeover. In short, the 52 returnees were a diverse group of individuals, and meaningful generalizations are therefore difficult.

Prior to the actual interviewing of any of the hostages, the hospital undertook several preparations. Alerts were held to ensure the ready availability of personnel. Staff were briefed on the need to be sensitive to public relations concerns. Staff were instructed to make no comments to newspaper people and to refer questions to our public relations specialists. Before the hostages arrived, many people, myself included, had misconceptions and fantasies about what the hostages might be like. Some of the hostages had, under duress, made anti-American statements. Would these people be accepted into the group? What signs and symptoms, both physically as well as emotionally, would the hostages demonstrate? Would serious psychiatric disorders be common? Department of State personnel briefed USAF Hospital Wiesbaden physicians to clarify many points. It was clear that the Department of State was in charge of the evaluative process. Evaluations were to be thorough, but diagnoses would remain conservative. A major function of the brief stay in Wiesbaden was decompression prior to their full repatriation into American life. Sensitivity to the needs of the patients, as well as sensitivity to public relations issues, were addressed. Interview and physical exam formats and techniques were discussed. A handout was prepared to update staff on anticipated problems of the returnees.

As well as the staff being prepared, so was the hospital's physical plant. The hostages were to be housed together on a medical floor. Security could be more easily provided and exposure to the press and the many well wishers could be limited in the interest of the returnees. In many ways, theirs was a hero's welcome. American flags and yellow ribbons were seen throughout the hospital. Giant greeting cards were prepared by children in the local Department of Defense schools. Telegraphs and letters were received from numerous well wishers, both in Germany and in the United States. Special foods were made available. Phone banks were installed so that returnees could contact loved ones back in the States. A library was set up so that hostages could review periodicals that came out during their captivity. The library became, for many, a place in which small groups of returnees could meet and talk together about their experiences. Video tapes were made available, including information of world news, and of particular interest, the hostage crisis. Most rooms were semi-private, but other areas were made available for greater privacy. Arrangements were made for security, and public relations personnel did a marvelous job accommodating the need of the news personnel without compromising the evaluation or care given the returnees. In the adjoining Amelia Earhart Hotel, suites were available for State Department personnel.

After these preparations had been completed, closer contact with the returnees was possible. My initial overall impression was that the hostages generally were in good health and had a need to talk about their experiences. They had been through a terrible ordeal. Many felt endangered during their captivity. Some had been tortured. Most felt that while the attention of the nation and the whole world had been focused upon

them, the power of the United States Government and the international community had been unable to protect them or to win their early release. All were very much aware that while they had been imprisoned for over a year, the world, their families and the folks back home had gone on without them. All felt the need to discharge their anxieties by talking and sharing their experience with others.

My second global impression was that of tremendous emotional resilience. Despite their ordeal, all seemed able to bounce back, and severe psychiatric signs and symptoms were amazingly rare.

While they were originally housed in the US Embassy, the hostages were later divided up for security reasons and maintained in several different facilities and supervised by a variety of captor groups. Some hostages stayed in relatively clean, but spartan, accommodations. Others were held in harsher quarters and some were placed in solitary confinement. At some point in their captivity, most were kept in the dark, had communication with other prisoners restricted, slept controlled, restricted hours, often with their hands loosely bound behind them. All had listened to Iranian propaganda about the criminal acts of America and the impotence of our government. Most had been exposed to the noises of the crowds of demonstrators outside the Embassy calling for trial of the American "spies." Some captors were more humane; others harassed their prisoners. Several of the Americans were denounced as spies and threatened with execution. Many hostages were pressured to make anti-American statements to the news media. Under tremendous pressure, some did. Whatever the political motivations of the radical students, their clear intent was to break down the hostages emotionally. These tactics did not end even when the returnees came to Wiesbaden. While there, for example, a group of Iranian "businessmen" came to the hospital gates attempting to deliver a funeral wreath, with one black rose for each hostage and a vague threat to harm the hostages or their families upon return to the United States. Despite such emotional stress, the hostages showed few signs of severe pathology.

Several explanations for this apparently good adaptation came to my mind. Although not observed by several of the other psychiatrists I spoke with, some of the returnees were defensive. At least two mentioned that they were unwilling to admit to symptoms of emotional distress. Despite the many reassurances to the contrary, they feared some possible impact on their future careers.

A second explanation might be that signs and symptoms could be delayed in presentation. Thygesen, in Denmark,² and Eitinger in Norway,³ studied concentration camp victims. They both noted that subjective disability was often delayed for up to five years in presentation. Margaret Singer pointed out in the March 1981 American Journal of Psychiatry, that time lag may be required for the development of significant psychiatric problems related to captivity stressors.⁴

A third explanation might well be that not everyone has his "breaking point," and that adequate adjustment to even extraordinary stress is possible. Doctor Singer concluded, "the research on repatriated POWs suggests that adult personality growth and resiliency have been underestimated in our current theories of human development."⁴ Kentsmith,

likewise, noted in November 1982 volume of Military Medicine, "during the Vietnam conflict, 332 US Air Force Airmen were taken prisoners of war and held hostage in North Vietnam . . . during captivity, they experienced extreme degrees of stress due to isolation, physical abuse, malnutrition, lack of medical attention, and psychological torture. In spite of the severe physical and emotional stress experienced by these men, virtually none became psychiatric casualties. Five-year follow-up checks after repatriation demonstrated they were free of psychiatric disorders . . . the psychological studies of repatriated men have done much to undermine the commonly held belief that if enough psychological and physical stress is applied to an individual, specific mental disorders or other psychiatric problems will inevitably emerge."⁵

I was likewise struck by the paucity of emotional symptoms among the returning Iranian hostages. Of the 52, one had a severe depression. Consideration was given to treatment with medications, but that option was not exercised in favor of flying the patient back to CONUS with the other returnees for a period of closer observation. The decision on future supportive psychotherapy and/or medications would be made on the basis of tentative initial impressions.

These observations are comparable to those of Ursano, Boydstun and Wheatley on Vietnam POWs. They reported in the American Journal of Psychiatry, "at repatriation, 76 of the 325 POW's (or 23.4%) were given a psychiatric diagnosis."⁶ None were diagnosed as psychotic, about 15% were given adjustment disorder diagnoses, about 3% were termed neurotic, and almost 2% were diagnosed as having marital or occupational maladjustment. I am not privy to any follow-up on the Iranian hostages, but it is interesting to note that Ursano found about 20% of the POWs in his study had psychiatric disorders at follow-up. Neurosis, psycho-physiologic disorder, adjustment disorders and personality disorders were noted most commonly.

How did they do it? How did so many of the returning hostages come through such an ordeal without significant emotional problems on repatriation? Several factors were noted often enough to bear mention.

Group cohesion is protective in regard to development of combat fatigue. I believe it was also helpful for the hostages. Even when groups were split apart, new groups formed. Lines of authority, facilitated by military and civil service rank structure, were largely maintained. Despite their many diversities, all were Americans held captive in Iran. Even though some had succumbed to coercion and made anti-American statements, they all seemed to be able to reintegrate easily into the group and to be accepted by other group members. One very special group were the nine U.S. Marine Corps guards. Upon arrival, they were told that they were Marines. They would act like Marines; they would look like Marines. They were taken for short, military haircuts and placed in new uniforms. They were part of a Corps, something much larger than any individual hardship, and they had a proud tradition to uphold. One Marine, for example, always signed his name and proudly drew beside it, his chevrons. When they marched away from Wiesbaden, at the end of their stay, all moved precisely with heads held high, secure in being members of such an elite group.

Captors, of course, try to isolate the prisoner and strip him of his

group identity. The Iranian students took from the hostages their usual social status and systems of support. Prisoners were divided into groups and some spent time in solitary confinement. Prisoners were treated unequally. Thirteen hostages were released early and returned home. All of this first group were blacks or women. The one Black and two women who remained must have felt a sense of increased isolation and wondered, "Why me? Why did I remain when the others were released?" Some prisoners were abused and threatened, others were not. Virtually all were made to feel powerless to control their future or even the very basics of life. Hostages, for example, were fed or not fed at the guards' choosing. They slept when, and if, the guards allowed it. Prisoners often had to holdup their hands to ask permission to go to the bathroom. Painfully reminded of their powerlessness and mortality, dependent upon the captors for everything, forbidden at times to communicate with others, many must have felt isolated and afraid. The defensive techniques that were used to master this anxiety varied among the hostages.

Some were defiant, focusing their rage upon the guards. One young Marine, for example, learned a phrase in Arabic which was insulting. He never passed up the opportunity to shout this insult to his captors, in spite of the many severe beatings he incurred. He did not even stop this defiant behavior when the guards began to beat any fellow prisoners who would associate with him. Even at the cost of becoming a social outcast, the Marine continued to exercise control over his situation and to control his anxiety through defiance.

Rationalization was used by some. They were, after all, diplomats detained in a foreign country, not common criminals. World attention was focused upon them, and any atrocity could well damage the international standing of the new government. This confidence began to erode in many as weeks slipped into months and continued cries were voiced to "try the spies." The Iranian government seemed in poor control of the militant students, and U.S. economic sanctions had failed to win early release. At best, the defense of rationalization had its limitations.

Another defense involved getting control over some aspect of one's life. One man, exposed to very harsh treatment, developed an exercise program which he used regularly to give his life direction and meaning. He was in control, whatever his captors did. He told me proudly, upon his release, that he was in the best physical condition of his entire life. With this ability to control even a limited aspect of his uncertain life, the prisoner no longer felt helpless, vulnerable, out of control, and passive.

Vivid dreams and fantasies have been reported by some investigators studying prisoners of war.⁵ The prisoners may inventory their past and recall experiences, opportunities, assets and liabilities. The prisoner may dream of a better future. Such dreams may be quite mundane, the meal he would most like to eat upon release or some activity he would enjoy. One hostage, bored with the routine, Middle-Eastern, largely vegetarian diet fed him, wanted a beer upon his release. Anticipating that when eventually repatriated he would be sent first to Wiesbaden, the hostage made detailed plans to have a beer at a particular local "stube." Another hostage carefully calculated his back pay, fantasized about special pay and compensations, possible court settlements against the United States or

Iranian governments. He made very explicit, specific plans to buy a new Corvette, down to the last optional detail. Whether he ever got his sports car or not, his plans helped him through a very tough period of his life.

Communication with fellow prisoners was very important. It allowed the hostages to share experiences and speculate about the future, infusing some reassuring predictability into an otherwise uncertain future. After release, the need to talk with others about the experience was also quite evident.

Another defense I will call "channeling aggression." Rather than taking anger and frustration out on the guards through defiant behaviors or identifying with the aggressors (as in the Stockholm syndrome), some controlled their anger and directed it toward a more friendly, distant object. Many were angry that they had not been better protected or evacuated sooner. They had been failed by their government, and they could direct their anger safely toward that government throughout their hostage situation. Special meetings were arranged by Department of State personnel with the hostages to help them deal with their pent up feelings after release.

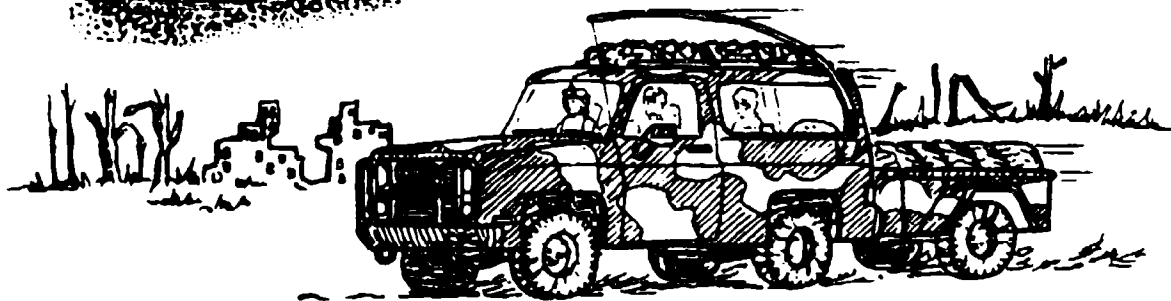
Finally, some of the hostages used the adaptive technique called by Kentsmith "a search for meaning."⁵ Trying to make some sense of their ordeal, some asked how it happened. Some Vietnam POWs had remorse that previous lives of freedom had not been more completely lived, and some thought their captivity was a fantasized punishment for some fault of their own. After release, Sledge and associates reported POWs who felt that they had somehow benefited from capture.⁷ Some had new ideas about themselves, their relations with others, and with the world at large. Though harsh, they considered imprisonment a growing experience. Similarly, some of the Iranian hostages reported better physical and emotional health as a result of their captivity. Perhaps they were benefited, but I could not help but think of this as man's attempt to give meaning to adversity.

These observations taught me something about hostages and the experience of being held captive. From a broader military perspective, some authors have suggested training programs be developed to teach effective coping techniques, should one be captured.⁵ Some may think this a defeatist posture, but others believe such programs could result in better adjustment of prisoners, more valuable intelligence about the enemy upon their release, and earlier return of personnel to productive duties. If developed, such programs would certainly draw upon the experience gained from the hostages and prisoners of war. Clearly, a better understanding of the process of becoming a prisoner, adapting to the life of a prisoner, and the initial response to repatriation upon release, can help us to provide better, more effective support for those who do return.

REFERENCES

1. The next ordeal: A struggle with emotions. The Washington Post: A26, Jan 21, 1981
2. Thygesen P., Hermann K., Willanger R: Concentration camp survivors in Denmark: persecution, disease, disability, compensation. A 23-year follow-up. A survey of the long-term effects of severe environmental stress. Dan Med Bull 17:65-108. Jan 1970.
3. Eitinger, L.: Acute and chronic psychiatric and psychosomatic reactions in concentration camp survivors, in Society, Stress, and Disease. Edited by Levi, L. New York, Oxford University Press, 1971.
4. Singer, M. T.: Editorial: Vietnam prisoners of war, stress and personality resilience. American Journal of Psychiatry 138:345-6, Mar 1981.
5. Kentsmith, D. K.: Hostages and other prisoners of war. Military Medicine 147:969-72, Nov 1982.
6. Ursano, R. J., Boydstun, J. A., and Wheatley, R. D.: Psychiatric illness in USAF Vietnam prisoners of war: A five-year follow-up. American Journal of Psychiatry, 138:310-13, Mar 1981.
7. Sledge, W. H., Boydstun, J. A., Rabe, A. J.: Self-concept changes related to war captivity. Arch Gen Psychiatry 37:430-443, Apr 1980.

COMBAT STRESS CONTROL



This paper presents the proposal for combat psychiatry and field mental health organization (as of 12 Jun 1985) which was developed as part of the Medical Systems Program Review (MSPR) process at the Academy of Health Sciences. It reflects input from many sources, subject matter experts and professional disciplines.

The MSPR package, including a very abbreviated version of this paper, was presented to the Army Vice Chief of Staff and other assembled General Officers on 17-18 December 1984. The Combat Stress Control (CSC) portion was approved for further development without negative comment. The proposed CSC organizational changes still have to run the standard gauntlet of TOE staffing and "murder boards". In the meantime, the details can and should be refined and tested in field exercises such as Dusty Bull and Wounded Warrior. The first In Process Review (IPR) of the MSPR for the Vice Chief is scheduled on 9 July 1985.

Important questions must be answered. How should such small, mobile teams be controlled and supplied on a fluid battlefield? Are so many vehicles with communications equipment really necessary? Is the interdisciplinary mix with its high officer/NCO to enlisted ratio justified? If experience supports these proposals, the current OM Teams (Psychiatric Service) can be modified and enlarged by MTOE to more closely represent the new concept even before final TOE approval. On the other hand, compromises may have to be accepted as limited personnel and materiel resources are stretched to meet all of the AMEDD's mission requirements. In particular, the employment of the CSC personnel in peacetime must be designed to assure they work together in the same small teams and with the same supported unit leaders they would work with in wartime. An affordable solution must be reached using Active Component personnel (many now in TDA, not TOE assignments) and the Reserve Components.

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TABLE 1. - Historical Ratios of Battle Fatigue Casualties to Hospitalized Wounded-in-Action (BF: WIA)

- Worst Case (WWI Chemical, new US troops) greater than 1:1
- Average Case (WW II US Average, European Theater) 1:3
- Best Case (WWII Elite airborne, glider units) less than 1:10
- Recent Case (Israeli Defense Force, Lebanon, 1982) 1:5
 - One IDF Bn, high stress action: 1:1
(from Noy, Nardi & Solomon study)

Health Services Support AirLand Battle (HSSALB) Recommendations for
Division and Corps-Level Combat Stress Control Units

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1. Introduction: The Medical System Program Review (MSPR) involves a complete reassessment of how the Medical Department supports the Army in combat. Its recommendations were presented to the Vice Chief of Staff of the Army for decisions which will effect manpower authorizations, funding and general priorities.

The basic recommendation of the MSPR (the concept for Health Services Support on the AirLand Battlefield, or HSSALB) is, in effect, to apply the principles of combat psychiatry to all of combat medicine. In order to carry out the medical mission in the "come-as-you-are, people-poor war" that we may face in the future, field medical units must become lighter, simpler and more austere. Otherwise they may never reach the battlefield, and cannot be kept supplied if they do. To the greatest extent possible, we should prevent casualties. Treatment must begin immediately, as far forward as possible, with major emphasis on returning soldiers to duty. Wounds and illnesses which prevent return to duty should be identified as soon as possible. The soldiers who have them should be held in the combat theater only just long enough to stabilize them for evacuation to CONUS where they can get sophisticated, definitive treatment.

The AMEDD Active Component will be determined by the numbers and specialties required for its wartime combat service support and essential CONUS base missions. It must be configured to deploy at 100% effectiveness on short notice. The MSPR proposes to accomplish this by organizing the TOE units into standard modular sections which can then be "built into" the peacetime TDA. The result (which is very favorable from the combat stress management perspective) would be that, on mobilization, most AMEDD personnel would deploy in small groups with people that they work with on a day-to-day basis, rather than as individual "PROFIS fillers".

This paper summarizes the MSPR analysis of the functional area of combat stress control and neuropsychiatry in the combat theater, and the issue of reorganizing and improving the deployment of field mental health teams. The issue is directly relevant to the prevention of battle fatigue casualties; to the rapid return to duty not only of battle fatigue cases but also of minor wounds in-action (WIA) and disease/non-battle injuries (DNBI); and to the clearing from the theater of the few neuropsychiatric cases who will not return to duty. The proposed concept utilizes modular TOE units which are designed for war, while performing related mental health functions in the peacetime TDA.

2. Functions of Mental Health personnel in combat: Current doctrine for this issue is provided by AR 40-216, Neuropsychiatry and Mental Health, which has just been republished. This regulation updates the proven principles of combat psychiatry to keep pace with changing organization and tactical doctrine for the mobile, deep battlefield and its threat capabilities.

Historical evidence (Table 1) shows that battle fatigue casualties can constitute a sizable drain on combat power. It also shows that much can be done to prevent the inevitable stresses of combat from making soldiers into ineffective casualties.

AR 40-216 places major emphasis on the prevention of stress casualties (Table 2). Primary prevention, in this context, means attacking directly the factors which are known to contribute to battle fatigue, including homefront worries, physical fatigue, sleep loss, excessive environmental exposure, unfamiliarity, uncertainty, lack of cohesion, and an inadequate sense of purpose.

Secondary prevention is achieved by early recognition of and intervention for what we will call "battle fatigue". This simple, non-medical term is well-suited to cover the wide range of emotional and physical symptoms and complaints (a subset of "reactions to combat stress") for which the AMEDD has a major responsibility. It implies a common, non-dramatic, easily understood condition, without psychiatric or moral connotations, which improves with rest and the mind's own self-healing powers. The only classification of battle fatigue which should be used in the field is into "mild", "moderate" and "severe". This classification is based solely on management considerations: if a soldier can be treated without leaving his tactical unit, the battle fatigue is "mild"; if he or she needs to come into the medical holding system for evaluation and initial treatment, but could be managed in a non-medical, combat service support unit if necessary, it is "moderate"; if the condition must temporarily be managed by medical/mental health specialists, it is (at that specific time) "severe". Severe cases should not be put in hospitals unless absolutely necessary, and may recover as quickly as moderate or mild cases.

Note that this purely operational definition carefully avoids any prediction of outcome or prognosis. It can be shifted as much by the tactical mission of the units involved as by the soldier's momentary symptoms. It makes no effort to label the soldier according to our presumptions as to the relative contributions of acute emotional, physiological, environmental or predispositional factors. On the contrary, it assumes that these blend dynamically, on a continuum, change from hour to hour, and may overlap or coexist with other battle and non-battle injury and illness. An overworked, sleep-deprived, stressed and probably scared medic, physician or mental health officer cannot determine these factors reliably under battlefield conditions anyway, so to assign different diagnostic labels based on guesswork (in a field where prejudice is already rampant) can only do more harm than good.

Tertiary prevention is the prevention of contagion. This is accomplished by the conspicuous, rapid return to duty of moderate and severe battle fatigue cases, which reduces the unconscious tendency for soldiers to develop the same symptoms which they see get others evacuated to safety.

Treatment principles are the same throughout this continuum for mild, moderate, and severe cases. These are summarized by the memory aid "IMPRESS" (Table 3). Note, in particular, the importance of maintaining the soldier's identity as a soldier (not as a "sick" patient) through action, and the simple, "spartan" nature of the treatment.

The duties of the specialized Mental Health personnel in TOE combat units support this preventive approach (Table 4). They must serve as educators, reinforcers, and consultants to troops, unit commanders and staff as well as to medical personnel. AR 40-216 specifically directs the Mental Health Team into areas which recently were concerns of Organizational Effectiveness personnel, such as assessing unit morale and readiness, and identifying correctable "system" problems. Along with staff planning and resource coordination, these functions must be carried out in peacetime if they are to be performed effectively at the onset of war.

TABLE 2. - AR 40-216 Emphasizes Prevention.

- Primary Prevention = reducing factors which increase stress:
 - = Battlefield Stress Management
(sleep logistics, information flow, physiologic stress titration)
 - = Preparation
(tough, realistic training, physical fitness, unit cohesion)
 - = Home Front Stress Management
(family support system, sense of purpose)
- Secondary Prevention = prompt treatment to minimize morbidity:
 - = early recognition of battle fatigue symptoms
 - = early intervention and treatment according to IMPRESS techniques (see TABLE 3):
 - "Mild" = treat in own unit by leaders, buddies, medics
 - "Moderate" = treat in AMEDD or Cmbt Svc Spt unit
 - "Severe" = treat in AMEDD unit by specialists
(may recover just as fast as mild and moderate)
- Tertiary Prevention = prevention of contagion:
 - = rapid, conspicuous return to duty of battle fatigue casualties

TABLE 3 Treatment Principles for Battle Fatigue (mild, moderate and severe) = I M P R E S S

I = Immediate

M = Maintain Military (not "patient") identity by action

P = Proximate to unit (best in own unit)

R = Reassure, rest, replenish, restore confidence

E = Expect positive response, rapid return to duty

S = Simple, short, "Spartan" treatment

S = Supervised by qualified AMEDD/Mental Health personnel

TABLE 4

Duties of Mental Health Personnel in Combat Units.

- Education of troops, leaders, medical personnel.
- Consultation to commanders in specific cases.
- Staff work to support the combat plan.
(These need to begin long before deployment!)
- Differential diagnosis and triage.
- Treatment of cases who can RTD (or supervise treatment).
- Reintegrate recovered cases into their units.

Differential diagnostic expertise is needed to sort out those cases which can be treated with IMPRESS from those which urgently require more specific medical, surgical or psychiatric treatment. The distinction is often not obvious, since organic mental disorders such as impending heat stroke, hypothermia, drug use or head injury can be confused with purely "functional" battle fatigue, while conversion and dissociative types of battle fatigue mimic actual neurologic or other physical damage. Mental Health specialists must perform such triage (sorting and sending cases in different directions) based upon the realities of both the soldier's condition and the unit's situation. They then provide treatment when feasible, or supervise the application of IMPRESS by non-specialists.

Finally, the Mental Health Team should take active steps to reintegrate recovered cases back into their units. Recent IDF experience in Lebanon has found that this step made a major difference between those mental health teams that had an 80-85% effective RTD rate and others which had only 60-65% remain at duty.

3. Current Status: US Army organization has not yet caught up with AR 40-216. In the division, the enlisted Behavioral Science Specialists in the Brigade Clearing Companies are junior ones. During the Vietnam Conflict, many of these were draftees with advanced degrees who did a superb job. Today, most are high school graduates who lack the necessary credibility, experience, and authority. Their number has also just been reduced.

The Division Psychiatrist is technically on the Division Surgeon's Staff, but in practice is locked into diagnostic and treatment functions at the Division Mental Health Activity in peacetime or at the Med Spt Company in combat, along with the Division Social Work Officer and Psychologist.

Behind the division, the EVAC, Station and General Hospitals have minimal neuropsychiatry staff, sufficient only for inpatient consultation/liason and limited outpatient services. No hospital in the theater of operations has any TOE inpatient psychiatric ward capability.

A 25-bed inpatient psych ward is supposed to come from the Treatment Section of an "OM Team" (Med Detachment, Psychiatric Service). The OM Team reflected a Vietnam orientation; it was created in 1970, replacing both inpatient psychiatric services and the field psychiatric team, Team KO. However, with each Treatment Section comes three Mobile Consultation Sections and a Headquarters, for a fixed package totalling 15 officers, 33 enlisted. Without augmentation by an OM Team, the current EVAC and GEN hospitals lack psychiatric ward capability; with an OM Team, they have an excess of "outpatient" capability, located too far to the rear to effectively treat battle fatigue. While theoretically 100% mobile, the consultation sections have insufficient administrative capability and no communications equipment for independent, dispersed, forward operations.

Official Basis of Allocation for Team OM is one per 140,000 non-divisional troops. Recent Manpower Criterion studies have documented a requirement of approximately 1 1/2 OM Teams per Division Force Equivalent for the NATO scenario. But only seven numbered OM Teams have been created, six in the Reserves. The one "active component" team has only IRR professional fillers authorized.

Field training exercises in June and August 1984 were the first ever involving OM Teams at the Med Group and Med Brigade level. These have provided valuable insight into how such teams need to be reorganized and employed.

4. Projected Caseloads: A number of factors in modern scenarios will tend to "overload" the Division's ability to treat all its battle fatigue cases (Table 5). Some of these factors tend to increase the ratio of BF to WIA towards or even past the 1:3 and 1:2 ratios seen in World War II.

The hazard of friendly fire (or "fratricide"), seems to be a special risk of modern, high speed, fast reaction-time, extremely lethal weapons systems. Another factor, high mobility, is itself somewhat protective, but makes it difficult to rest mild cases in the unit and leaves units vulnerable to battle fatigue when they pull back temporarily to refit. The reduction in the size of CSS units in a division in relation to the combat arms they support also means that CSS units will be worked harder and more continuously; they will be less able to accept the burden of restoring battle fatigue cases. The depth of enemy action on the battlefield makes CSS units themselves likely sources for high ratios of battle fatigue in relation to wounded. This will be true of corps level units as well. The use, or even the threat, of NBC weapons will increase the incidence and complicate the treatment of battle fatigue.

The Total Army Analysis (TAA)-90 data base used in the MSPR provides the patient flow caseload projections for a mid-intensity, conventional NATO scenario (Figure 1). The ratio of moderate plus severe battle fatigue to wounded in action is about 1:2, or 103 cases per division force equivalent per day. Of these, fifteen are treated and released in less than a day, to rest in the combat trains or other CSS units. If the tactical situation and staffing allows, perhaps forty-five more can be held for one or two days (average 36 hours) at the three Brigade medical clearing companies, giving an average daily census here of 67 (i.e. from 10 to 30 soldiers per company's 40-cot capacity). Thirty more could be rested for up to 96 hours (average 60 hours) at the Division Medical Support Company; however, this gives a daily census of 75, which exceeds the 40-cot capacity. Therefore either expedient shelter must be found or corps-level medical holding facilities must take the overflow.

Seven soldiers require longer treatment: AR 40-216 specifies the need for a highly structured "combat fitness reconditioning program" which is not in a hospital, lasting up to 14 days. Another six battle-fatigued soldiers require brief hospitalization for stabilization; five of these can be discharged to the Combat Fitness Reconditioning Program and returned to duty while one is evacuated. Assuming an average holding time of 10 days, for the 12 cases, the average daily census of the CFR program, per division/corps slice, is 120 cases. (Some acute alcohol and drug related problems can also be salvaged by this route, but are not included in this analysis).

Although not represented in the data base, it must also be recognized that many soldiers with minor physical wounds or disease non-battle injuries (DNBI), especially those who are separated from their units and treated in the rear, have psychological reactions which retard their recovery unless they are treated in accordance with the same principles as battle fatigue.

The risk factors and projections create a new requirement, clearly stated in the new AR 40-216, for corps-level multidisciplinary teams to provide the full range of combat psychiatry services to corps units. These units must also be able to deploy forward into the division and brigade areas in direct support of, and under operational control of, the Division MH Section. These will "plug into" the DMHS points of contact and take over most of the holding patient treatment responsibility and some of the differential diagnosis. The DMHS must keep itself free to continue preventive work, stop inappropriate evacuation and assure return to duty of recovered cases.

TABLE 5

Factors in the NATO Scenarios which are likely to overload the Div Mental Health Section with Battle Fatigued soldiers.

- Soviet doctrine aims to produce "battle paralysis" with armor, artillery, air, rear area attack, electronic warfare, disinformation...
- Highly intense, mass casualty battles.
- Uncertainty, especially of NBC, global war.
- First combat for most junior troops.
- Continuous operations, sleep loss.
- High risk of being hit by "friendly fire".
- High mobility limits treatment in combat unit (but keeps B.F. casualties low while in motion).
- Reduced Cmbt Svc Spt resources for resting.
- Cmbt Svc Spt units hit by deep attack have high BF: WIA ratio.

FIGURE 1
BATTLE FATIGUE CASES

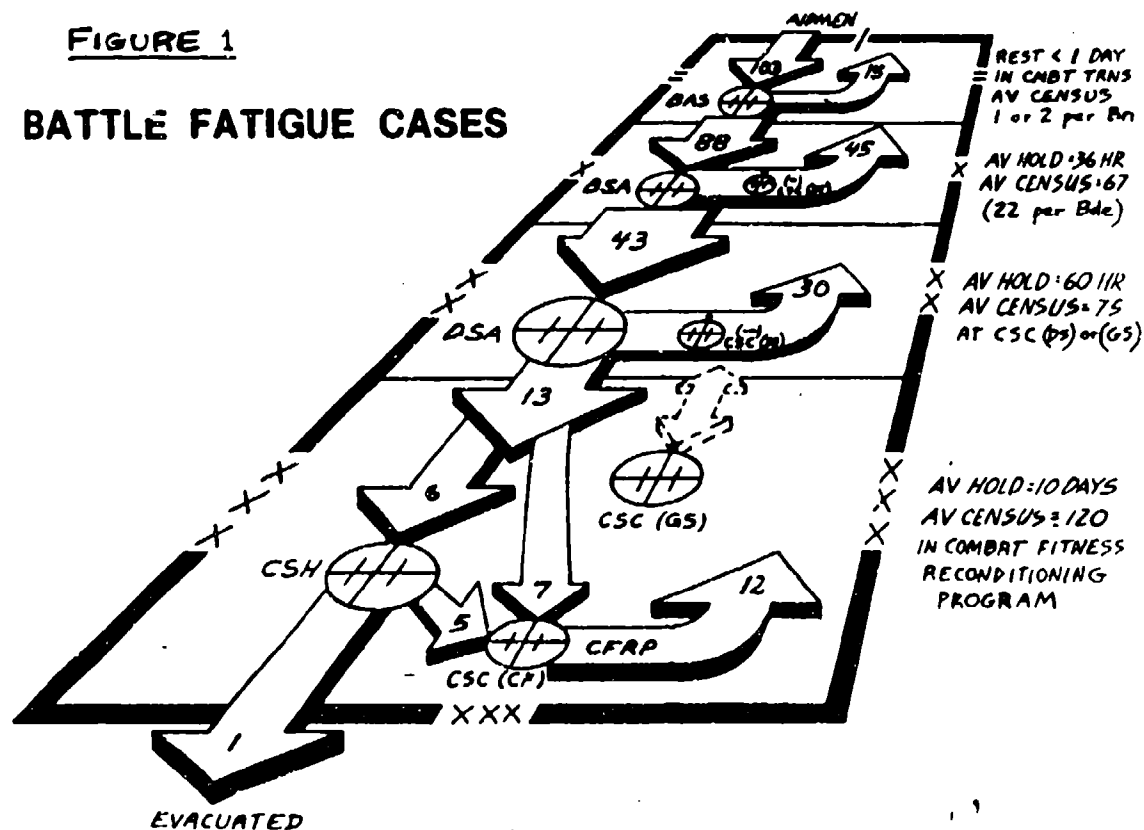
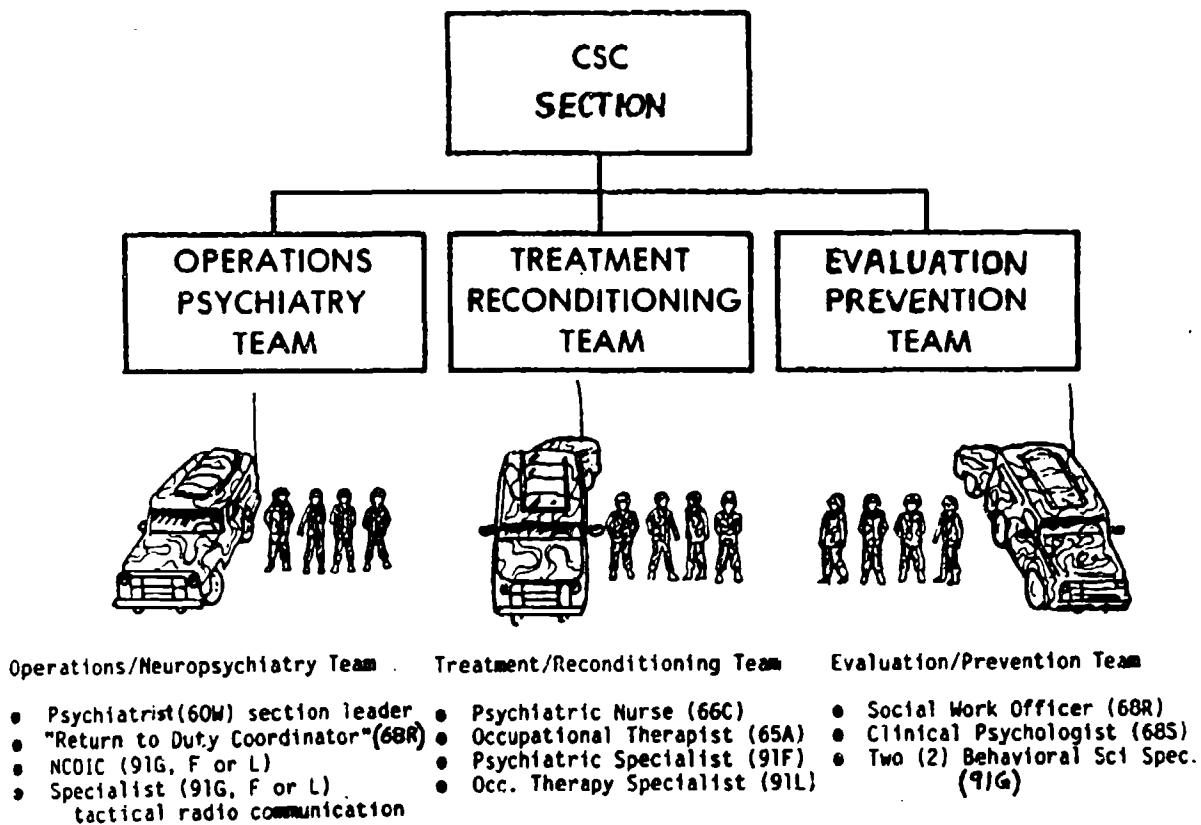


FIGURE 2 & TABLE 6

COMBAT STRESS CONTROL SECTION



COMBAT STRESS CONTROL PLATOON

(ONE PER DIVISION SUPPORTED)

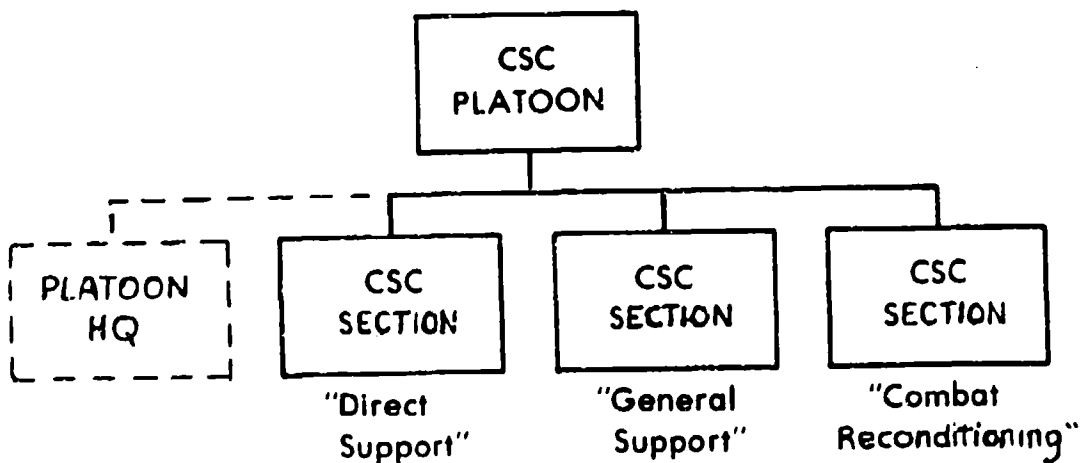


FIGURE 3

CSC PLATOON Ops Concept

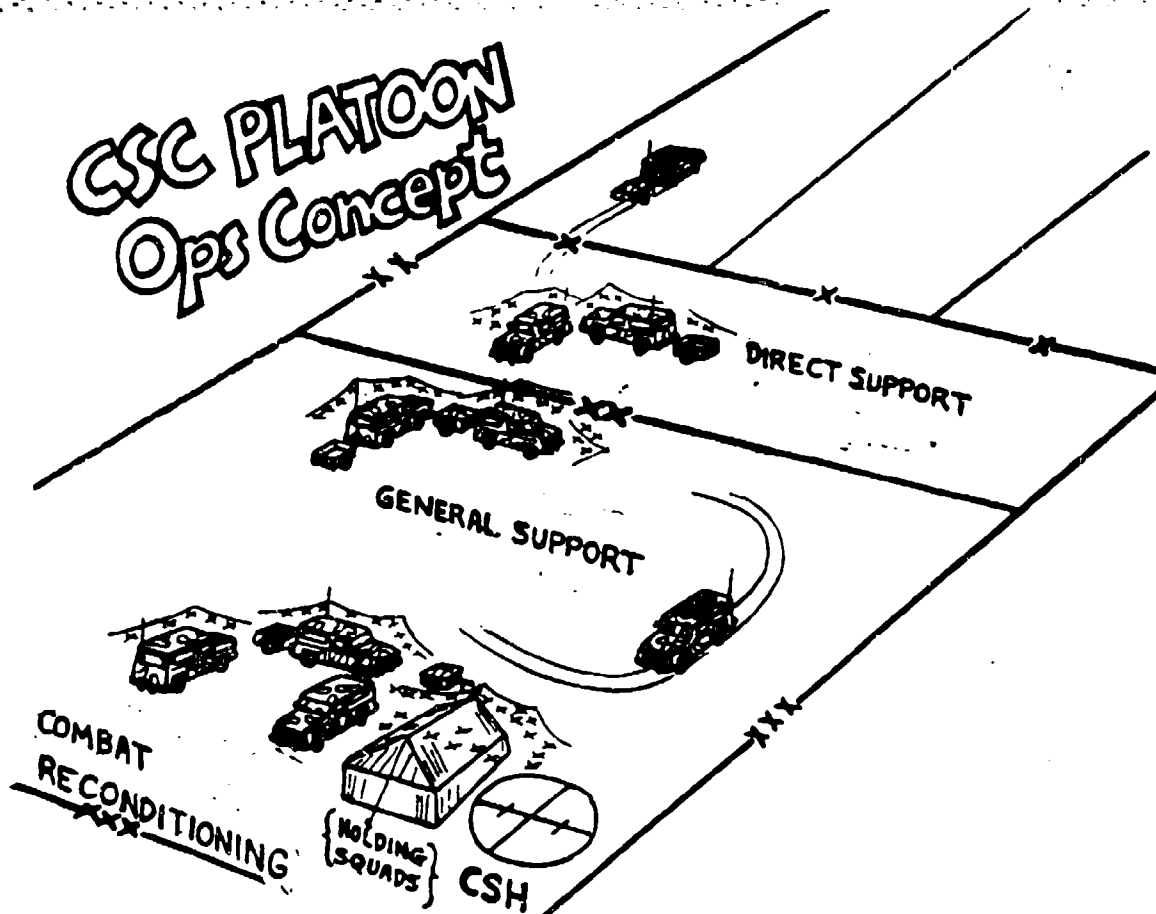


FIGURE 4

CSC RECONSTITUTION MISSION

ASSIST BATTLE FATIGUED UNIT RESTORE ITSELF WITH:

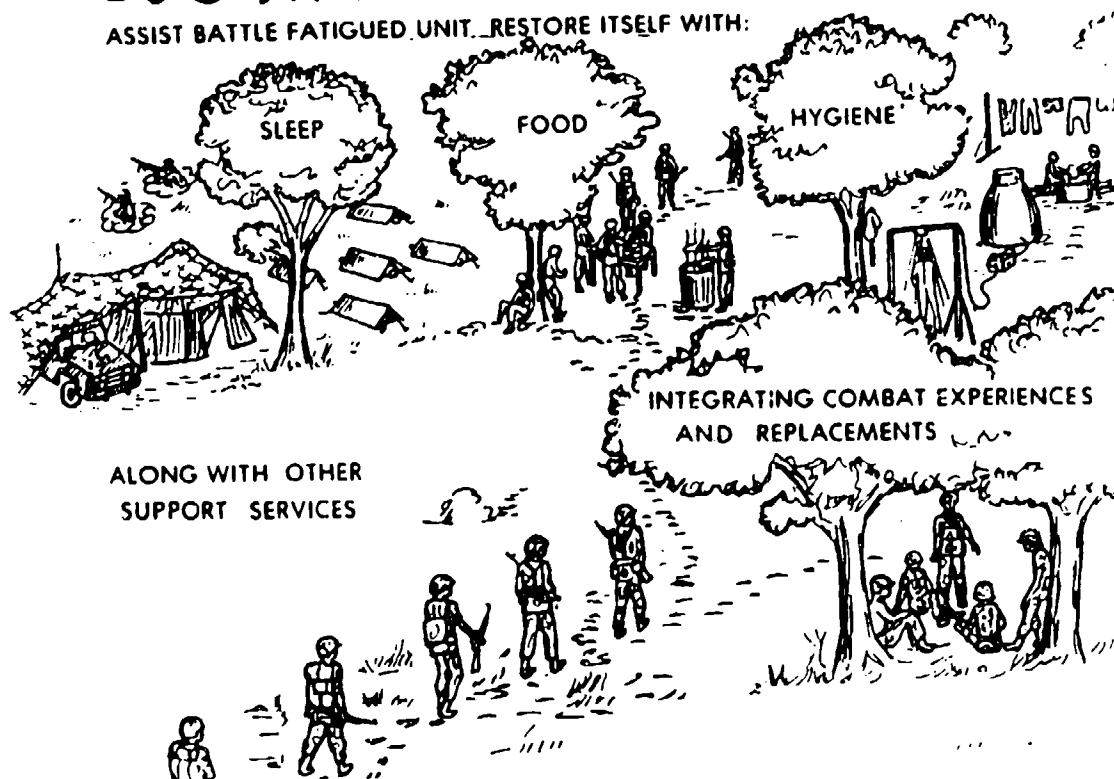


FIGURE 5

6. Operational Concept: (Figure 4) The sections (and teams within sections) are prepared to deploy by echelons to support a rapidly developing combat force (Appendix A). The "Direct Support Section" normally provides direct support to the Division Mental Health Section in the division area and receives its logistical support from the division. Its teams may go forward to assist the Brigade MHNCO with treatment of cases at the Forward Med Co's holding section.

The "General Support Section" normally provides similar support and consultation to units in the forward corps area, receives overload cases from the division, and reinforces Direct Support Section in necessary. It usually works out of an Area Treatment Company and receives logistical support from the Area Support Battalion in the Medical Group.*

The "Combat Reconditioning Section" normally runs the NTE 14-day Combat Fitness Reconditioning Program (CFRP) for division and corps soldiers, and provides local area support and consultation. It collocates near, but separate from a Combat Support Hospital (CSH), may be allocated one or two 80-cot Holding Squads from a Holding Platoon, and utilizes recuperating NCOs and officers with minor disabilities as temporary Reconditioning Section leaders. It receives logistical support from the Area Support Bn or the CSH.

Severely psychotic soldiers whose symptoms require close supervision and heavy medication may have to be admitted briefly into the new type 250-bed CSH, along with others suspected of having organic brain syndromes or potentially dangerous drug or alcohol intoxication or withdrawal. Under SPR, the CSH is very clearly defined as the "Return to Duty Hospital". Current proposals give it only one psychiatrist, two psychiatric nurses and two 91Fs, but these should be sufficient to supervise an Intermediate Care Ward team of medical nurses and 91Cs in running an acute psychiatric emergency and detoxification unit. Cases which recover sufficiently in 4-6 days will be sent over to the CFRP; those who do not will be evacuated. No unwounded "psychiatric cases" will be sent to the EVAC hospitals, which are surgery intensive, evacuation oriented, and have no Mental Health personnel. The CSH also has an OT and PT officer, with one 91L and 91J, to work with the 180 minimal care ward patients.

In addition to managing battle fatigued soldiers, all CSC Sections assist in the reconditioning of minor wound/DNBI cases in the Division Medical Companies, Area Treatment Company and Holding Platoon holding facilities. Battle fatigue cases may be quartered in these tents and cots, or in expedient buildings, or may remain in open bivouacs (weather permitting).

CSC Sections and Teams may also be used in a preventive role to assist "battle fatigued units" (platoons, companies or battalions) which have been pulled back briefly for rest and reconstitution (Figure 5). The CSC teams can take with them prepackaged trailer "pallets" to provide a very limited amount of simple shelter and sleeping facilities (shelter halves? air mattresses? blankets?), food (B-ration tray packs), and field expedient means of heating food and hot water for showers and laundry. The new Sanator XM-17 chemical decontamination equipment may be well suited for the latter purpose. These supplies enable the team to begin unit self-help treatment of battle fatigue immediately, even when other combat service support is delayed.

* Each Area Spt Bn HQ will have its own Mental Health Section. This ASMHS is a reduced version of the DMHS, having two mental health officers, a 91G NCOIC, and four or five 91G's who could be detailed to each Area Treatment Med Co. Such an Area Support MH infrastructure would greatly assist the efficient use and support of the CSC sections.

5. Recommended Organization: The Division Mental Health Section is to be consolidated as a staff section under the Division Surgeon or in the Division Medical Operations Center in the DISCOM. This section continues to provide a psychiatrist, psychologist and social work officer. The six or seven enlisted specialists represent a partial restoration over currently planned cuts. One 91G is to be identified as Senior Division MH NCOIC and three as Brigade MHNCOs, with appropriate rank (E-8 and E-7s) to go with the required duties. Each brigade MHNCO will routinely work with a specific brigade's staff, battalion and company commanders as well as with the Forward Medical Company and battalion medical platoons which support it. He provides formal and informal education programs and command consultation, and assures field training in battle fatigue treatment during field exercises and when the brigade rotates through the National Training Center. He fills the position of Mental Health Coordinator in peacetime and Combat Stress Control Coordinator (CSCCO) in combat. Ideally, he will provide counselling or refer all cases (including family problems) within that brigade. An E-6 91G provides similar services to the DISCOM. The Division Psychiatrist, Psychologist, Social Work Officer and MH NCOIC supervise the MHNCOs, provide professional-level expertise for training, case management and referral, and provide clinical treatment for a small, selected percentage of the division's cases. No one below E-5 should be assigned to the other one or two enlisted positions in the DMHS.

The basic AMEDD module which is proposed for the corps and division backup is the 12-person Combat Stress Control Section (Figure 2), consisting of three teams of 2 officers, 2 enlisted each. In accordance with AR 40-216, this section includes all five of the five mental health professional disciplines and their enlisted specialists: Psychiatry, Social Work, Clinical Psychology, Psychiatric Nursing and Occupational Therapy (Table 6). All of these have core skills to manage (or supervise the management of) generalized stress and battle fatigue cases. In addition, each brings to the team unique areas of expertise and responsibility. An analogy can be made with the Special Forces A-Team. A second Social Work Officer serves as Case Regulating Officer/RTD Coordinator for the section, and the sixth enlisted specialist has additional training in tactical radiotelephone communication.

To accomplish their missions, the teams must communicate with each other over wide distances and the section must be able to communicate directly, in secure mode, with AMEDD and tactical line units. This capability can be achieved with the Mobile Subscriber Equipment which is under development for the division/corps area. Each team must be 100% mobile off roads, and therefore has a suitable small truck. Two teams in each section also have trailers.

Three CSC sections are organized into a platoon (Figure 3). Normally, one platoon (18 officers, 18 enlisted) supports one division and its corps slice. The draft TOE currently also has a Platoon HQ team with a Psychiatrist platoon leader, a 91G platoon sergeant, a unit clerk/Patient Admin Specialist and a Chaplain. The Chaplain has been proposed to foster the CSC platoon's and its sections' interaction with Line and medical unit chaplains and their organizations, and to provide ethical and morale perspective to battle fatigued soldiers and AMEDD personnel alike. As the draft TOE is staffed, a compromise may require that the platoon leader and platoon sergeant be double-hatted as section leader and NCOIC of the Operations/NeuroPsychiatry Team of one of the three sections. Although all three sections have the same TOE, they usually fill different functions. They can be task organized by augmenting or cross-attaching individuals or teams from one section to another.

FIGURE 6

**COMBAT
STRESS
CONTROL
COMPANY**

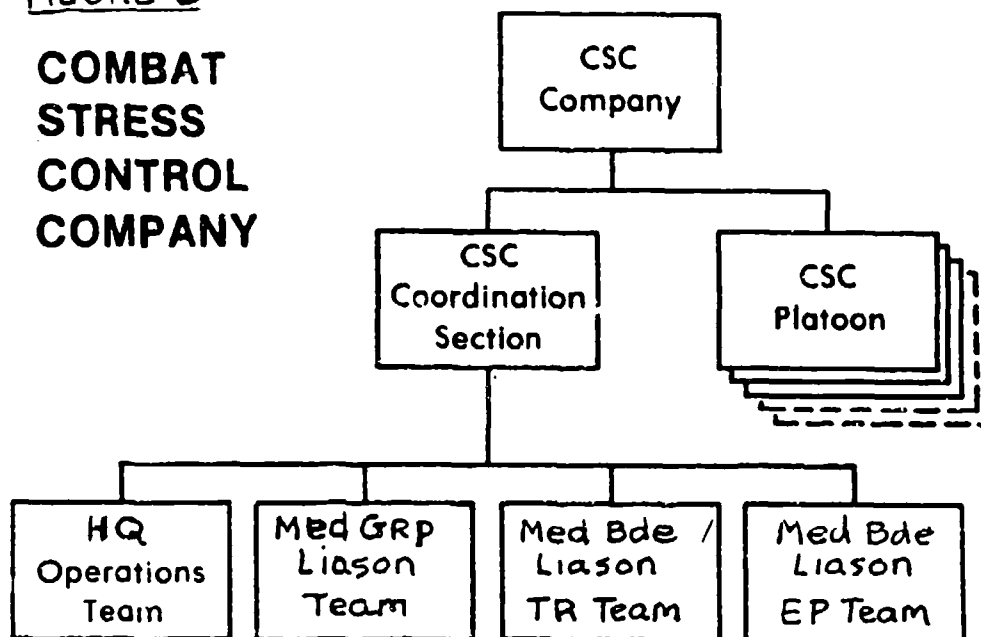


TABLE 7 CSC HQ/Coordination Section of CSC Company

1. HQ Section

- Psychiatrist (60W) Commander
- Field Medical Assistant (67B)
- NCOIC (91G, L or F)
- Patient Admin NCO (71G)
- Supply NCO
- Personnel NCO
- (Motor NCO)*
- (Light Wheeled Vehicle Mechanics)*

2. Med Group Liaison Team

- Two 91G, L or F NCOs

3. Med Bde Liaison Treatment/Reconditioning Team

- Same as TR Team of CSC Sections, but of high rank

4. Med Bde Liaison Evaluation/Prevention Team

- Same as in EP Team of CSC Sections, but of high rank

* May be redistributed to Area Spt Med Bns to better support dispersed CSC Platoons and sections

Working along with other medical, personnel, supply and maintenance contact teams in the Reconstitution Process, CSC section personnel assist the tired unit command to get rest, restore hygiene, physiological reserves and a sense of "humanness", integrate combat experiences, recombine their surviving resources and incorporate new replacements. In this way, many soldiers who would otherwise be identified as moderate or severe battle fatigue by their mildly battle fatigued units never have to be labelled as casualties, and the entire unit gets good quality respite and replenishment in a short time.

7. Command/Control: The two or more (typically five) CSC platoons supporting a corps are organized into a CSC Company. The platoons are under the operational control of the Medical Groups, but their activities are coordinated by a CSC Company Coordination Section (Figure 6, Table 7). Basis of allocation is one such CO Section per corps. Its HQ and Liason Teams plug into the Medical Group headquarters or into the Med Brigade with a liaison CSCCO NCO at each Med Group. The psychiatrist in command functions as COSCOM psychiatrist and staff advisor to the senior medical commander, and communicates directly with the corps psychiatrist in the corps surgeon's office. The Brigade Liason Evaluation/Prevention and Treatment/Reconditioning teams provide high level command consultation, liason, and a quick-reaction, trouble-shooting reserve capability. Additionally, one Combat Stress Control Company Coordinating Section and one 36-40 person CSC Platoon per five divisions supported are allocated for Echelons Above Corps in a rear area (COMMZ), under the control of the MEDCOM and its Theater Neuropsychiatry Consultant. These provide area support to troop units, Army families and refugees. They may also provide consultation and augmentation to the new type 500-bed General Hospitals, which have no Neuropsychiatric personnel in their TOE to manage locally generated inpatients or the evacuees from the divisions (most psychotic) who are awaiting evacuation to CONUS. Approximately one GEN Hospital per core (1 in 10) should be augmented with a complete Neuro-psychiatry Ward Team (NP) once the theater begins to mature. In a fully mature theater, these might even go forward to augment CSHs in the corps areas. The COMMZ CSC sections are also ready to reinforce the combat zone units if necessary.

8. Investment: An accounting of manpower requirements, by MOS, for Combat Stress Control units to support a typical 5-division Corps is provided in Table 8. For the mature NATO scenario, including COMMZ, the total number of mental health personnel in field teams increases from 75 officers, 165 enlisted in five OM teams to 480 officers, 515 enlisted in five CSC companies totalling almost 24 platoons. As can be seen, this increases both the manpower bill and the officer to enlisted ratio (and the enlisted grade level) compared to the currently authorized OM Teams. The high "bill" is chiefly a consequence of the gross neglect of this critical aspect of medical combat readiness over the past 15 years.

Equipment requirements for the CSC Concept also increase compared with those presumed by the current OM teams (Table 8). Ideally, all CSC teams (each of four persons) will have the new 3/4 ton CUCV (Chevrolet "Blazer"), and some will pull the current 1/4 ton trailers. All teams (vehicles) need the Mobile Subscriber Equipment, and some may need tactical radios (which are not currently authorized to the OM teams). Each team would have one GP small tent, camouflage net, and other miscellaneous tools. Special sets will include general medical supplies and equipment, special psychiatric items and medication, and may include new, compact neuropsychological testing, recreational and occupational therapy items. Cost of the proposed trailer "pallets" of expendable supplies for the reconstitution role must be explored.

Other personnel implications of the proposed CSC concept include increased training of Mental Health personnel in field combat stress control (with less time for TDA duties). The Behavioral Science Specialists (91Gs), in particular, must have high levels of skill, field experience and rank; this could best be achieved by making the speciality no longer an entry level MOS.

9. "Designed For War, Modified For Peace" Plan: The proposal calls for making up most of the CSC sections for Active Component divisions from active duty mental health personnel who work together doing related peacetime duties. Most of the personnel with the required SSIs and MOSs are currently available for the 18 division Army, with perhaps limited substitution of Social Workers for Psych Nurses and Occupational Therapists (who are short because of requirements for them in Combat Support and Support Base Hospitals). The Reserve Components have more personnel to meet the proposed 27 division Total Army and additional CONUS mobilization base needs.

Figures 7 and 8 show schematically how the modular system could work. In peacetime, active component Direct Support Sections should be members of the Community Mental Health Service which most closely supports that division. They would provide clinical mental health and social work support for most of the division's soldiers and their families. In other words, the TOE CSC Platoon which has been "Designed For War/Modified For Peace" takes over responsibility from the TDA MEDDAC and the Division MHS for running the peacetime CMHS (and probably also augments other Army Family and Community Support Services and Alcohol and Drug Prevention Control Programs). General Support Section of that CSC Platoon (and the Platoon HQ) would be in the same or another CMHS which supports units from that same corps slice. Ideally, Combat Fitness Section should also be incorporated into the MEDDACs at the same corps' posts, but may come from the regional MEDCEN or Reserve Component if that is not affordable. National Guard divisions should have a National Guard CSC Direct Support Section, but could have USAR CSC Sections to complete the CSC platoon. The HQ section of the CSC Company Coordinating Sections should always include full-time Active Component or Active Guard Reserve administrative personnel to provide a full time coordinating office for these diverse elements. The CSC companies for the COMMZ roles could come entirely from the USAR.

10. Benefits: If the CSC concept is able to work "pro-actively" in peacetime and in combat (that is, through consultation and aid to unit reconstitution rather than by waiting passively for battle fatigue casualties to occur), it will contribute substantially to prevention, perhaps reducing the casualty ratio from 1 BF per 2 WIA to 1 BF per 10 WIA (that is, from 100 cases per division slice per day to 20). This would be the ideal contribution, although after the war, some will probably argue that the CSC teams "weren't needed".

If battle fatigue casualties do occur at the 1:2 ratio projected by TAA-90, a 5-division corps' CSC Company of about 200 personnel will be heavily committed in the "reactive" mode, speeding the return to duty of 435 (87 x 5) soldiers per day, corps-wide. How many of those 435 return to full effectiveness, and how many would be restored even if rested and treated in a more haphazard way by the Division MH sections alone or in other AMEDD or CSS units, are moot points. But history does prove that unless these cases are managed actively, with positive expectation, few are returned to duty and many become psychiatric cripples. The relative magnitude of this cost/benefits ratio is highlighted by the projection that the 2500 persons in a corps' ten "return to duty" CSH hospitals will be returning 350 WIA per day.

TABLE 8. INVESTMENT (per 5-division corps)

	CURRENT (One OM Team)	PROPOSED (Five CSC Platoons One Coord. Sec.)	CHANGE
Officers	15	106	+91
<u>Enlisted</u>	<u>33</u>	<u>111</u>	<u>+78</u>
TOTAL	48	217	+169
<hr/>			
Vehicles	08	53	+45
Trailers	4	34	+30
Mobile Subscriber Phone	0	53	+53
<hr/>			
MC(60W)	5	21 (16)*	+16
ANC(66C)	2	16	+14
AMSC(65A)	0	16	+16
MSC(68R)	6	31	+25
MSC(68S)	1	16	+15
MSC(67B)	1	1	0
Chaplains	0	5	+5
Enl(91G)	19	70 (65)*	+51
Enl(91F)	11	16**	+4
Enl(91L)	0	16**	+16
Enl(other)	2	9***	+7

* Numbers in brackets are if the 60W platoon leader and sergeant also function as section leader and NCOIC

** Number shown assumes all NCOIC, Commo, and NCO Coordinators are 91G's. Some may instead be 91F or 91L.

*** Does not include LWV mechanics

NOTE: The 5-division corps also has a total of ten 60W, twenty 66C, ten 65A, twenty 91F and ten 91L in its ten Combat Support Hospitals. Two Area Support Battalions may add another ten 91G, two 68R and two 68S.

FIGURE 7

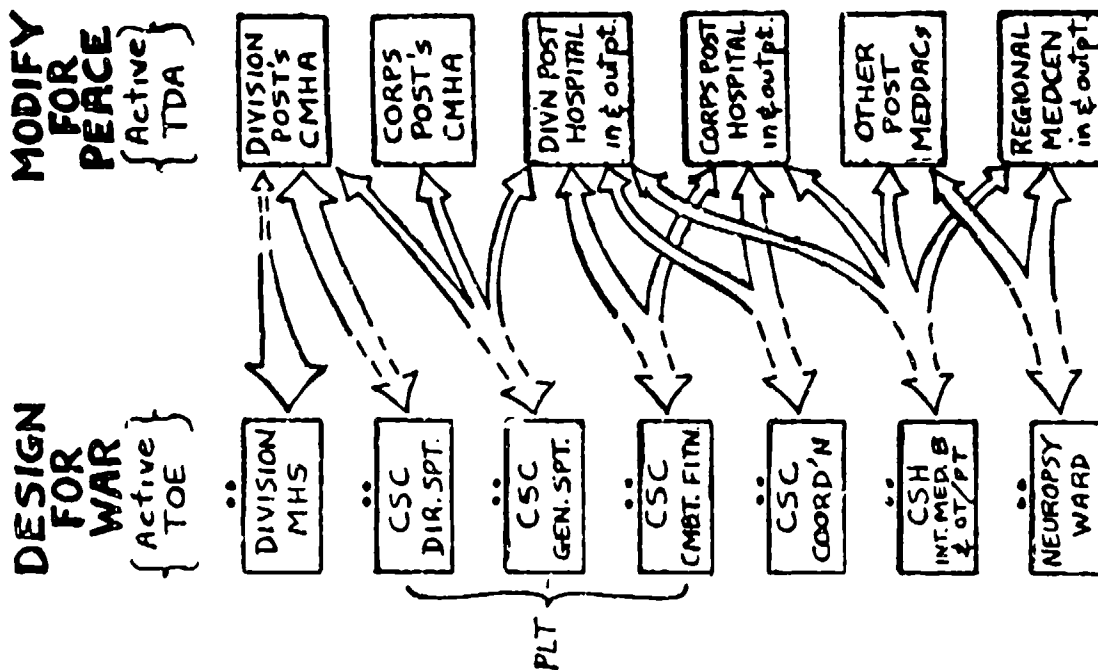
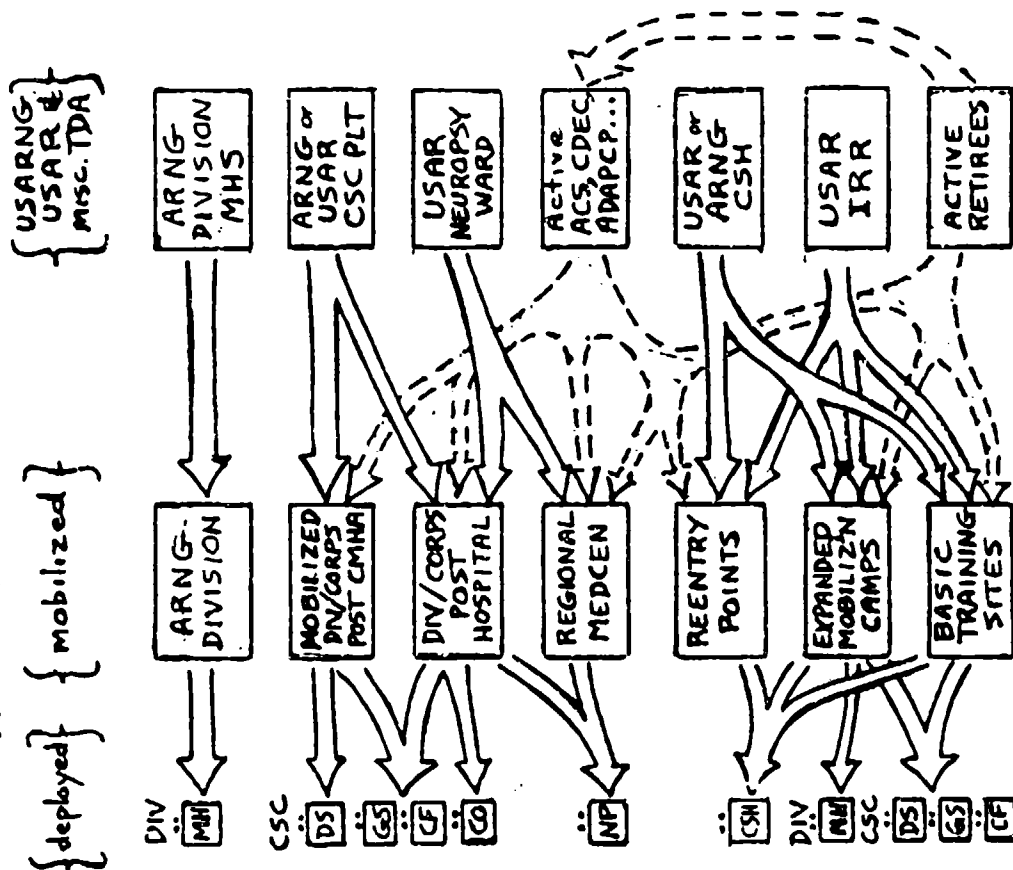


FIGURE 8

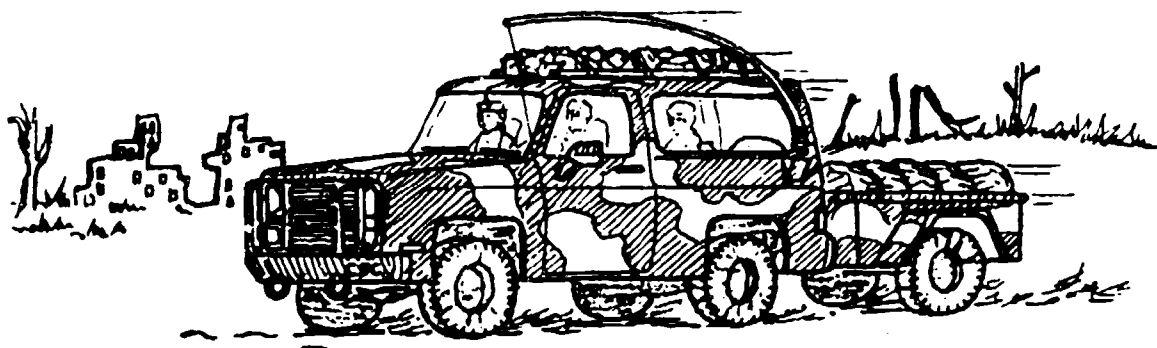
BACKFILL, FLOWTHROUGH AND AUGMENTATION



An equally important contribution of the CSC teams will be in speeding the return to effective duty of many soldiers classified as minor WIA or physical Disease/Non Battle Injury, treated in the CSHs or Area Treatment Companies, who would otherwise develop battle fatigue-like disability.

Restoration to their units of such large numbers of trained, combat experienced soldiers could make the difference between victory and defeat in the first critical days and weeks of such a war.

Another potential benefit of the concept, if carefully applied, is to provide a stable pattern of career progression for mental health officers and enlisted which would parallel the American Regimental System. A suitable variety of positions will exist: assignments to TOE line units and staffs, medical staffs, outpatient CMHSs, inpatient MEDDAC services, the regional MEDCENS, and related Army Community Support programs. All of these will support specific line units, divisions, and a corps in a geographical area in CONUS, with predictable rotations to the equivalent services overseas. Reserve unit modules would have well defined missions to back-fill the active component modules in support of mobilizing National Guard and Reserve Divisions, and would work with the Active Component modules during annual training. The result should be a great increase in familiarity and cohesion, not only among the Mental Health personnel themselves, but also between them and the medical and combat arms unit officers and NCOs that they support. Such familiarity and the trust that it can provide are a major source of strength and effectiveness to the Combat Stress Control concept.



BENEFITS

- Reduces battle fatigue casualties
- Speeds return to duty of 435 cases per day (corps-wide)
- Speeds recovery of many minor wound, disease, and injury cases

ACTION PLAN

RECOMMENDATION: Reorganize and increase Corps and EAC Mental Health Resources

<u>TASKS REQUIRED</u>	<u>LEAD AGENCY</u>	<u>TIME-LINE</u>
Develop DPTOE (L-TOE)	AHS-CD	FY 87
DPTOE Review/Board	TRADOC-ATCD-O DAMO-FD MACOM	FY 87
Publish "L-TOE"	TAG	FY 88
Unit Conversion	DAMO-FD DASG-HCO NGB OCAR MACOM	FY 88-91

APPENDIX A

Contingency Time-Phased Deployment of Mental Health/Combat Stress Control Elements COL Jim Stokes, MC

1. This memorandum proposes a sequence for the insertion of modular medical (MODMED) Neuropsychiatric/Mental Health personnel and teams into the combat zone during a rapid deployment. The objective is to get Combat Stress Control assets into the Theater as early as possible to support the combat units in the critical, high risk period of first combat exposure. A similar sequence could be used by units already stationed in the theater as they move to their field positions on hasty mobilization.

2. Division Mental Health Section

a. Brigade Mental Health NCOs (91G, E-7) go in early, with their maneuver brigades' headquarters staff, (presumably in advance of the bulk of the Forward Medical Company). They travel light, with rucksack and perhaps a light motor-dirtbike. They provide staff input through the brigade surgeon (or directly to S1 if Bde Surgeon is elsewhere), monitor the incidence of battle fatigue and related cases in the Battalion Aid Stations and units, and provide on-site consultation and assistance where indicated. When each one's Forward Med Co arrives, he moves there to function as triager/evaluator and to supervise treatment of cases by the Holding Squad or Brigade combat service support elements. He continues to provide staff input through the Brigade Surgeon (and perhaps the Division Psychiatrist).

b. The Division Psychiatrist and the one 91G E-5 deploy with the first arriving Brigade's Fwd Med Co. They bring one of the DMHS vehicles (3/4 ton or 1/4 ton) if feasible; otherwise, they, too, travel light and rely on brigade transportation and communications assets. The psychiatrist provides medical/neuropsychiatric diagnostic backup to the MHNCO and Bde Fwd Med Co physicians, plus staff input to the brigade staff (assisted by the MHNCO). The E-5 91G assists the MHNCO and psychiatrist. When two brigades and a coordinating Division Headquarters element have arrived, the psychiatrist either stays at the busier of the Fwd Med Co's, or moves to the Division HQ element. When the Med Spt Co arrives, he moves there, but continues to provide staff input through the division surgeon.

c. The Division Psychologist, the DISCOM MHNCO (91G E-6) and the Division MH NCOIC arrive with the Med Spt Co/Med Bn HQ lead elements. They bring one or two team vehicles if at all possible. At the Med Spt Co, the Psychiatrist, Psychologist, E-6 and E-5 91G and MH NCOIC can set up a reasonably secure but small evaluation/treatment capability as well as maintaining preventive consultation and staff planning. They can reinforce a Bde MHNCO at a Fwd Med Co if needed.

(1) Alternatively, the Div MH NCOIC has already deployed with an earlier DISCOM HQ element, and makes contact with the Fwd Med Co when it arrives.

Contingency Time-Phased Deployment of Mental Health/Combat Stress Control Elements

(2) If there were serious battle fatigue problems in the lead brigades, the division psychiatrist could also have gotten the psychologist squeezed onto an earlier flight, traveling light, to reinforce the second brigade Med Co Fwd or the staff consultation role.

d. The Social Work Officer functions as Rear Area Detachment MH coordinator while closing out business at the DMHA or shifting it to CMHA or, better, to civilian agencies. If the unit is already stationed in Theater, the Social Work Officer should be assuring the evacuation or safe garrisoning of division families. If the deployment continues, the Social Work Officer joins the other DMHS officers at the Med Spt Co, sheparding any vehicles and equipment not already sent forward.

3. Direct Support (Forward) Section, Combat Stress Control Platoon.

a. This 12-person squad is comprised of personnel who staff the CMHS at the same division post.

b. "Team ONP" (Operations/Neuropsychiatry, i.e., the Psychiatrist, the Return to Duty Coordinator (68R) and Commo NCO (91G or 91B E-5) and one E-5 91G borrowed from "Team EP" deploy as early as possible among corps support units, with their 3/4 ton "Blazer" truck (and trailer if feasible). They immediately join the Div MH Section at the Div Med Spt Co.

(1) Alternatively, the Psychiatrist and Commo NCO can go first, traveling light, and the rest of the team with truck, follows later.

(2) The NCOIC in Team ONP remains behind to help ready the rest of the section for deployment.

c. "Team TR" (Treatment/Reconditioning), the Psych Nurse and Specialist and Occupational Therapy Officer and Specialist plus the Case Control Officer from Team ONP, if not yet gone, deploy as soon as they can among corps elements, along with their truck plus trailer. Team TR goes before Team EP in order to add the special Psych Nursing and Occupational Therapy skills which are not present in the division's own mental health section. These also immediately attach to the DMHS with Team ONP.

d. "Team EP" (Evaluation/Prevention, i.e., the Social Worker, Psychologist and 91G)) plus the NCOIC from Team ONP close down their CMH cases or transfer them to General Support Section personnel or to incoming Reserve Units, then deploy with any remaining vehicles along with the first Area Treatment Company and lead elements of General Support Section. They immediately move forward to join the rest of Direct Support Section at the Division.

Contingency Time-Phased Deployment of Mental Health/Combat Stress Control Elements

4. General Support (Center) Section, Combat Stress Control Platoon.

a. This 12-person section is comprised of personnel who staff the post's CMHS at the same division post or from other posts supporting corps-level units in the same corps. The section leader psychiatrist and NCOIC may be double-hatted as platoon leader and sergeant, or these may be additional personnel in a separate Platoon HQ Team. There may also be a unit clerk/patient admin specialist and a platoon chaplain in the platoon HQ.

b. Team ONP deploys with the first corps-level Area Treatment Company.

c. Teams TR and EP deploy at the same time, if feasible. Otherwise, they follow in later flights with other Area Treatment Companies or with the Area Support Bn Headquarters. The sequence, if split, should be TR, then EP.

5. Combat Reconditioning (Rear) Section, Combat Stress Control Platoon.

a. This 12-person squad is comprised of personnel who belong to the CSC Platoon but work in the MEDDAC hospitals at posts which support corps units. Alternatively, it could be from the regional MEDCEN, or from the Reserve Components.

b. Preferably, this section deploys intact with a later deploying Area Treatment Company or with the Combat Support Hospital that it will relocate near. If necessary, however, its teams may deploy separately in the sequence ONP, TR, EP.

6. Coordination Section, Combat Stress Control Company.

a. This approximately 16-person section should be comprised of senior personnel from the MEDDAC hospital supporting the Corps headquarters post and other corps post hospitals. It deploys when two or more CSC Platoons (i.e., two supported divisions) are in the Combat Zone.

b. HQ Section and the Med Grp Liason Teams (NCOs) deploy with the first Medical Group Headquarters. This may be in advance of the Combat Fitness Sections of some of the deploying CSC Platoons. They may travel light.

c. The Brigade Liason Team TR and Team EP follow as soon after as is feasible, bringing along any vehicles and HQ personnel left by the earlier deploying teams. Alternatively, they come with the Med Bde HQ.

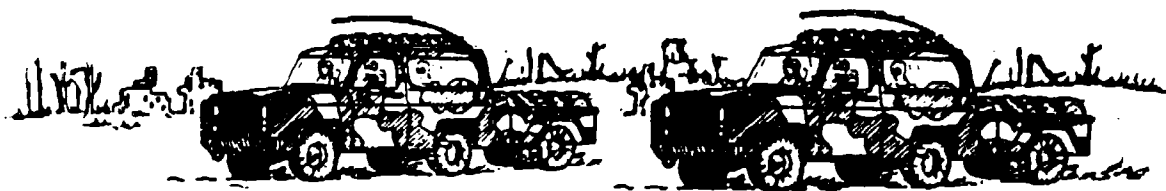
d. If a Medical Brigade headquarters arrives later, the HQ section moves to it while the liason teams divide to have NCO CSC coordinator representatives in both Med Group Headquarters.

Contingency Time-Phased Deployment of Mental Health/Combat Stress Control Elements

7. Commentary

a. The terms "division or corps post" should be interpreted liberally to include not only CONUS posts and their CMHs and MEDDAC hospitals, but also garrison areas in Europe and Korea and their supporting mental health clinics and hospitals. It is recognized that they later have problems of geographic dispersion and intercommunication which make the formal CSC platoon organization even more essential for command and control.

b. The CSC section personnel whose primary peacetime duty is to staff CMHs may also be detailed to augment MEDDAC hospital outpatient and inpatient services, ADAPCPs, CDECs, Family Advocacy Programs, Army Community Services and other roles. By formal arrangement, these could be official assignments with a high degree of responsibility and autonomy. In all cases, such roles should also contribute to the well-being of the units these MH officers and NCOs will support in the event of combat, and promote face-to-face familiarity and trust among the Mental Health personnel and unit leaders.



ACTION OFFICER: COL JAMES W. STOKES
OFFICE SYMBOL: HSHA-IBS
PHONE NUMBER: AV 471-6565/3803

ISSUE: Combat Stress Control: Reorganize mental health field teams.

DISCUSSION: The stresses of intense or prolonged high-technology battle produce various psychological and somatic symptoms now grouped under the deliberately non-descriptive term "battle fatigue." The importance of preventing battle fatigued soldiers from becoming casualties and of returning those who do quickly to duty is highlighted by six facts: (1) In heavy fighting, battle fatigue cases may range from one-third to twice the wounded-in-action (the latter extreme case in NBC scenarios). (2) Most battle fatigue casualties occur during the first hours and days of combat exposure. (3) Seventy to 90% of those who do become disabled can be returned to effectiveness within hours to days by rest and restorative treatment in or close to their units. (4) In such scenarios, the battle fatigued may constitute the largest pool of "replacements" who can be returned to full effectiveness within 6-72 hours, in time to influence the outcome. (5) Active prevention can reduce battle fatigue casualties below one-tenth of the wounded, even in heavy combat. (6) Evacuation out of the combat zone, however, usually results in chronic and often permanent psychiatric disability.

With improvements in the responsibilities, rank and supervisory control of the Behavioral Science NCOs at Brigade level, current US division-level Mental Health Sections appear adequate to the preventive, staff and diagnostic aspects of their mission in most future scenarios. However, the combination of local mass casualties and high fluidity (mobility) may make it impossible to provide rest and restorative treatment close to the unit. Furthermore, the great depth of the battlefield can generate large numbers of battle fatigue casualties throughout the corps areas and even in the "communications zone." The AMEDD Combat Stress Control System must be mobile and flexible, able to provide both preventive and restorative treatment on an area basis in corps and EAC and to provide direct support to divisions in the forward corps and division areas.

The current psychiatric Medical Detachments (Team OM) lack the necessary flexibility. Each is too large (48 persons, 8 vehicles) to be transported early in a deployment. The fixed combination of one 7-person headquarters section, three 9-person mobile consultation sections and one 14-person inpatient treatment section (to augment a hospital) prohibits precise tailoring. Without augmentation by an OM Team, the EVAC and GEN hospitals lack psychiatric ward capability; with an OM Team, they have an excess of "outpatient" capability, located too far to the rear to effectively treat battle fatigue. While theoretically 100% mobile, the consultation sections have insufficient administrative capability and communications equipment for independent, dispersed, forward operation. The SSI/MOS distribution suits them for the consultation role but is less than optimal for providing rest and restoration treatment to large number of cases at the clearing or treatment company level. Only seven numbered OM teams exist, six of them in the USAR, most at reduced strength, several without field training. Most are scheduled late on the Time Phased Force Deployment Lists (TPFDL).

RECOMMENDED ACTIONS: The AMEDD organizational concept for Combat Stress Control condenses five subdisciplines of the Mental Health Team into a single 12-person module or section. The section is subdivided into three Teams of 2

officers and 2 corresponding enlisted specialists: Operations/Neuropsychiatry (60W Psychiatrist, 68R case control officer); Treatment/Reconditioning (66C Psych Nurse, 65A Occ Therapist); Evaluation/Prevention (68R Social Work Officer, 68S Clinical Psychologist). All members have basic skills to direct the management of generalized stress casualties, while each brings expertise to an area of responsibility to be cross trained to others. Three CSC Sections comprise a platoon. One platoon normally supports one division and its corps slice.

Operational concept: Sections (and teams within sections) deploy by echelons. "Direct Support (Forward) Section" moves into the Division Area in direct support of the Division Mental Health Section. Its teams may go further forward to the Brigade Medical Companies or to line units. "General Support (Center) Section" provides general support to corps units and medical facilities, and reinforce Forward Section as needed. "Combat Reconditioning (Rear) Section" normally runs the 14-day Combat Fitness Reconditioning Program needed to restore the residual 20% of battle fatigue casualties to duty. It locates near a Combat Support Hospital (CSH) in order to use convalescing NCOs and officers as reconditioning section leaders. All sections use medical holding facilities to accommodate battle fatigue cases when available; otherwise, field or expedient shelter is used. All sections also work with medical holding patients who have minor wounds and diseases, to speed their return to combat effectiveness.

CSC teams and sections also deploy forward to assist battle fatigued companies and battalions which are pulled back briefly for rest and reconstitution or which have suffered mass casualties. Along with other medical and logistical contact teams, the CSC personnel assure that the troops and their leaders get good quality rest and replenishment in a short time, integrate their recent combat experience, and establish strong, cohesive bonds as units are recombined and reinforced.

The CSC platoons within a corps constitute a CSC Company. Deployed platoons are under the operational control of the Medical Groups. The CSC Company's Coordinating Section (allocated one per corps) provides liaison and coordinator personnel to the Medical Groups' headquarters and the senior Medical Commander. These advise and assist regarding the employment, support and reallocation of CSC assets to support the corps' combat plans. One CSC Coord Sec with one platoon per five divisions provides back-up and Area support in the COMMZ.

COSTS: The investment in CSC "Companies" for the mature NATO theater (compared to 5 OM Teams) is approximately 900 persons (+660).

LEAD AGENCY: Combat Developments Directorate, Acad. of Health Sci., US Army.

BENEFITS: Improved rapid deployability, versatility and flexibility. Provides direct support to divisions and improved coverage to corps units. Use of CSC teams in the reconstitution mission should greatly decrease battle fatigue casualties. If the ratio of battle fatigue to WIA remains 1:3, as in the TAA-90 NATO data base, the 200 CSC personnel per corps speed the return to duty of 430 soldiers per day, many of whom would otherwise be lost to combat duty and some become chronically disabled. They also speed recovery of many minor WIA, some of whom might not otherwise return to duty.

FACT SHEET

HSMA-IBS
April 1985

SUBJECT: Management of Combat Stress and Battle Fatigue

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1. **Combat Stress:** Combinations of physical and mental stress in the combat zone can produce symptoms in any soldier which temporarily interfere with military performance. Control of stress is a command responsibility. Most soldiers can be treated symptomatically, reassured, and restored to effectiveness by leaders and medical personnel within the unit. Such nondisabling stress reactions are referred to as "mild battle fatigue".

2. **Signs/Symptoms:** Anxiety, shakiness, feelings of inadequacy, grief and simple exhaustion predominate. Psychogenic loss of motor, sensory, speech or memory functions are less common. Total withdrawal or panic, impulsive behavior or persistent hallucinations are uncommon. "Hidden" forms present with physical symptoms due to stress, excessive pain and disability from minor or healed wounds, or "self-inflicted" (deliberate or negligent) injury and illness.

3. **Moderate/Severe Battle Fatigue:** Only those soldiers with stress reactions whose symptoms make them an unacceptable burden on the unit should be held for treatment as "casualties" and, if necessary, be evacuated by medical support units. Diagnostic labels should not be used. Instead, all stress casualties should be carded as "battle fatigue", moderate or severe, with brief, factual notes describing symptom presentation and any known precipitating factors. "Moderate" is used for cases who may need evaluation by AMEDD personnel but who could be managed and transported by nonmedical support units if necessary. "Severe" cases are those who need to be held right now at a medical facility because their symptoms are too disruptive for other units or require further diagnosis to rule out medical/surgical conditions which could need emergency treatment. "Severe" does not necessarily indicate a poorer chance for rapid and full recovery.

4. **Epidemiology:** Many factors influence the occurrence of battle fatigue, for example--intensity, duration and nature of combat; insufficient training, cohesion or leadership; home front concerns, and physical stress, sleep loss and fatigue. An average casualty rate for heavy conventional combat is one battle fatigued soldier for every three wounded in action (WW II data). During or immediately after desperate actions by company-sized units, battle fatigue casualties have equaled the wound casualties. On contaminated chemical battlefields, stress casualties among inexperienced troops may temporarily exceed chemical casualties two to one (WW I data). Battle fatigue can also occur in combat service support troops who deal with the consequences of modern weapons, even if not themselves under fire.

5. **Management Principles:** PROXIMITY--treat as close to the unit as the situation permits; IMMEDIACY--treat quickly and briefly; EXPECTANCY--express positive expectation for recovery and rapid return to duty.

6. Treatment Methods: Brief medical/neuropsychiatric examination to rule out serious physical/mental illness or injury; reassurance; relative relief from danger; rehydration; sleep; nutrition; attention to hygiene; restoration of confidence by group sharing of experience; supportive counselling if needed to clarify memories, express feelings and restore perspective; structured military work details and recreation. Use sedative or tranquilizing medication in low doses only when essential for rest or agitated behavior. Do not hospitalize. Reinforce the soldier's identity as a soldier and member of his/her unit, not as a "patient".

7. Treatment Results: Seventy to eighty percent of moderate/severe battle fatigue cases return to duty within 1-3 days if kept within the division. When returned to their original units and welcomed there, recovered cases have no increased risk of relapse. Most cases who do not recover fully within 96 hours can be restored to some duty provided they continue in structured, equally positive treatment within the combat zone. Premature evacuation of battle fatigued soldiers out of the combat zone must be prevented as it often results in permanent psychiatric disability.

8. Treatment Resources: Within a division, evaluation, triage and management is provided by the Division Mental Health Sections, Division Psychiatrist, Social Work Officer and Clinical Psychologist, plus up to seven enlisted Behavioral Science Specialists (MOS 91G). One 91G is assigned to each medical clearing company in support of a brigade, while the rest of the team usually works out of the medical support company in the division rear. In the corps area, mental health personnel may be available in the Medical Detachment, Psychiatric Service ("Team OM"), whose mobile teams provide preventive consultation and outpatient services. These can also use the holding facilities of a clearing company to establish a rest and replenishment program to restore battle fatigued soldiers from the divisions or corps units to duty. A Psychiatrist, Psychiatric Nurse and two Psychiatric Specialists are in each Evacuation Hospital.

9. Differential Diagnosis: Casualties with organic mental conditions (including brain injury, hypo or hyperthermia, drug intoxication/withdrawal or other toxic illnesses) must be treated at the appropriate medical echelon. Malingerers must be discharged back to duty or for disciplinary action. Patients with serious psychiatric disorders who are not likely to recover quickly are evacuated via the Evacuation Hospital to the COMMZ or CONUS.

10. Preventive Measures: During respites from combat, as in peacetime, the mental health personnel have primary preventive functions of staff and command consultation, assessing units' psychological readiness for combat, educating leaders and medical personnel on combat stress control and battle fatigue, supervising battalions' preventive psychiatry plans and providing mental health support to soldiers with problems unrelated to the combat situation. Effective preventive programs can reduce the incidence of battle fatigue casualties to less than one-tenth of the wounded in action.

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LESSONS LEARNED FROM RECENT OPERATIONAL EXPERIENCES

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These Proceedings represent the output from the fourth in a series of workshops on combat stress (Mangelsdorff and Furukawa, 1981; Mangelsdorff and Furukawa, 1982; Mangelsdorff, King, and O'Brien, 1983). The purpose of this Fourth Workshop on Combat Stress was to identify the lessons learned from recent operational experiences. In order to cover stress occurring during training, peacekeeping, and actual combat, the term operational stress will be used in this discussion. There are a number of important lessons which can be derived from the descriptions of the operational stresses inherent in the recent operational experiences described earlier in these Proceedings. These lessons are:

1. It is crucial to train both medical and line personnel at all levels to recognize and deal with operational stress before a mobilization. In order to accomplish this goal, realistic operational stress casualty play must be included in field exercises.

2. Mental health personnel must establish liaison with line units before a deployment in order to assist them in developing an appreciation of the relevant issues. These liaisons must include training and interacting with these units in order to develop credibility with them. Ideally, the mental health personnel who will deal with a unit should be dedicated to that role and clearly identified ahead of time to all parties concerned.

3. Interventions should be oriented towards prevention and prompt return to duty. The PIE/IMPRESS principles are clearly useful in dealing with operational stress casualties in all settings, but they have not always been employed in either training or actual operations.

4. Particular attention must be paid to prevention in those populations especially susceptible to operational stress. These groups include support troops and the members of the chain of command. The support troops may be particularly at risk due to their relatively passive role in the face of hostile action.

5. Unit status assessments before and after an operation are essential. These assessments should include, at a minimum, assessments of unit cohesion and morale. Morale appears to have a common factor structure across cultures, although the details differ. High levels of cohesion and morale are crucial in all operations. These assessments should also tap goal ambiguity on the part of the troops in the surveyed unit.

6. Post-operational debriefings, in the form of group discussions, are especially useful in dealing with operational stress. These debriefings could take place in field settings. This applies to line units, and to medical and mental health units at all levels of the evacuation chain.

7. Crucial items of advice for line commanders were identified. These items include: providing realistic training for the specific mission; maintaining sleep, food, and water discipline for all troops and leaders; recognizing that troops are not always busy when leaders are busy, and planning accordingly; and recognizing that troops and leaders require realistic expectations about an operation.

8. The recent operational experiences of the American and British forces have resulted in relatively low levels of apparent operational stress casualties. However, these operations were: conducted using elite units from these military establishments, popular on the home front, relatively mild in intensity, short in duration, and very successful. Even under such favorable conditions, the level of stress was much higher than casualty figures would indicate.

9. The final, and perhaps most crucial, lesson from these experiences is that the level of operational stress can be dramatically reduced if troops know that their families and property at home are being looked after. Such efforts as family outreach or support programs, information efforts, and support groups can be crucial. Single troops also have concerns about family, friends, and property left behind which must also be addressed.

In order to be of use, however, these lessons must be applied. The remainder of this discussion will describe pre-deployment actions, deployment phase actions, and post-deployment actions which can be taken to control operational stress.

The pre-deployment actions to control operational stress emphasize prevention. These actions involve supporting families, establishing a suitable organizational and training baseline, establishing and maintaining appropriate vertical cohesion and morale, and conducting pre-deployment unit status assessments.

Providing preestablished support programs to families or significant others will relieve troops' concern and reduce the initial shock of starting an operation. Appropriate actions would include establishing family support networks, providing realistic and believable evacuation or protection plans where needed, and providing for the unique needs of single troops. This type of support was crucial in Grenada and in the Sinai and would likely be vital in the event of a European mobilization.

A suitable organization and training baseline is also important. It must be recognized that present and anticipated mental health resources will be very limited, and must be effectively used. Any changes in the organization of the field mental health delivery system must insure that the mental health personnel are thoroughly identified with the supported unit, and that they have established credibility with that unit. Liaison with the chaplains must also be established. Mental health personnel will need to insure that both medical and non-medical personnel receive suitable training in identifying and dealing with all aspects of operational stress, including the grief reactions of troops. Both the medical and the line hierarchies must be convinced of the value of post-operational debriefings ahead of time. They must be disabused of the notion that the "They've

suffered enough, leave them alone" attitude is in the best interest of the troops. The medical treatment, evacuation, administration, and communications chains must be fully coordinated before an operation begins. As treatment will, of necessity be forward oriented, this will necessitate abandoning the "medical center" model of care for operational stress casualties. The groundwork with the line must be laid prior to any deployment. Mental health personnel will only be successful with the line if they have established an atmosphere of trust with the supported units down to the lowest levels. The supported units must be encouraged to conduct realistic training with the levels of equipment and supplies which would be taken on a deployment, in order to develop the psychological readiness in the supported troops.

Establishing and maintaining appropriate levels of unit morale and vertical and horizontal cohesion must be done ahead of time. This is clearly a function of line command, but mental health personnel can have an impact through command consultations. Personnel turbulence can make cohesion development particularly difficult, as this turbulence seriously impedes the flow of knowledge from the experienced troops to the newer soldiers. Troops in maneuver and support units need to train in order to develop faith in their equipment and procedures. The training of these two groups must be integrated to allow the maneuver troops to develop faith in their support. The support troops seem to be a population particularly at risk for operational stress and will need particular attention during this phase.

The final pre-deployment action is to implement an ongoing program of unit mental health, cohesion, and morale assessment as part of a command consultation program. These efforts will provide a basis for decisions on preventive programs.

During the deployment phase of an operation, the mental health personnel will watch for symptoms, conduct individual and group interventions, and provide ongoing command consultations to the supported units. These actions will reflect an emphasis on preventing operational stress casualties and on rapid return to duty of those that do occur.

The symptoms of operational stress have been adequately listed in other sources (Mangelsdorff and Furukawa, 1981, Mangelsdorff and Furukawa, 1982). The major ones are neurotic and psychotic behavior, behavior which is maladaptive in a military setting, e.g., disobedience, excessive or inappropriate use of drugs or alcohol, exhaustion, and burnout.

In dealing with individual operational stress casualties, the forward-oriented treatment principles of PIE/IMPRESS, described elsewhere in these proceedings must be followed. All efforts must emphasize return to duty. In order to efficiently use the available mental health resources, therapeutic interventions will, for the most part, be conducted in groups. It must be emphasized that many conventionally wounded casualties will also be operational stress casualties.

Interventions with units will involve group interviews. These will be ventilation sessions which will allow troops to share experiences. They will also permit the informal assessment of unit mental health status and will provide the opportunity to identify non-obvious cases of operational

stress. In the course of these interventions, it will be particularly important to closely observe personnel in leadership positions and other crucial individuals for signs of operational stress, and to take appropriate action.

The mental health personnel will also need to provide an ongoing series of consultations to the supported units to assist them in dealing with unique aspects of the operational environment. These consultations will emphasize the importance of sleep, water, and food discipline; they will also assist in dealing with the build-up of feelings of isolation, danger, and fatigue. Recent experiences suggest that commanders may require advice as to the impact of media activities on their troops.

The post-deployment actions of mental health personnel will involve debriefing of as many of the deployed and supporting personnel as possible, following up operational stress casualties, performing assessments of unit status, and preparing for subsequent deployments through a vigorous program of command consultations.

In order to efficiently utilize the available mental health resources, the debriefing sessions will probably need to be conducted with unit-oriented groups. Many of the troops in the groups will need to reconstruct their experiences with the others present. In conducting the debriefings, it is important to insure that the needs of the medical and mental health members of the staff are met. Media and public reactions will require particular attention in the case of combat operations.

During or upon return to the garrison, it will be important to follow-up all identified operational stress casualties in order to insure that both the service member and the service member's family are receiving appropriate interventions. Family interventions may also be required for some troops who did not become operational stress casualties. These families might best be identified through a family support network.

At this point, it is also necessary to assess the morale, vertical, and horizontal cohesion of the maneuver and support units involved in the deployment. This should be accomplished via the same standardized instrument employed pre-deployment.

These results should be incorporated into a vigorous program of command consultation in order to prepare for subsequent operations. Thus, this discussion has come back around to pre-deployment actions.

Clearly, many of the operational stressors which can lead to operational stress casualties are amenable to our direct control. Our charter in this Fourth Workshop on Combat Stress was to identify the lessons learned from recent operational experiences, and we have done so. We have the further duty to insure that these lessons are acted on at all levels. Thank you all for your participation.

REFERENCES

- Mangelsdorff, A.D. and Furukawa, T.P. (Eds.) Proceedings, Users' Workshop on Combat Stress. Ft Sam Houston, TX: Academy of Health Sciences, 1981.
- Mangelsdorff, A.D. and Furukawa, T.P. (Eds.) Proceedings, Second Users Workshop on Combat Stress. Ft Sam Houston, TX: Academy of Health Sciences, 1982.
- Mangelsdorff, A.D., King, J.M., and O'Brien, D.E. (Eds.) Proceedings, Third Workshop on Combat Stress. Cohesion. Ft Sam Houston, TX: Health Care Studies and Clinical Investigation Activity, 1983.

PANIC AND CATASTROPHE BEHAVIOR IN MODERN WARFARE

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I - Physical and psychological characteristics of modern warfare.

With the experience of recent and present armed conflicts and with the help of expert advice, we may try to foresee the major characteristics of modern warfare, such as could involve the western forces.

The characteristics of such warfare would be:

- suddenness, rapidity and physical intensity of the first fighting,
- situation of sustained combat during several days, day and night, with no possibility of relieving engaged units,
- use or threatened use of non-conventional weapons, nuclear (tactic or strategic), chemical and biological.

These characteristics imply the following consequences on the psychology of the fighter:

- intense feeling of vulnerability of the human body in the face of the power and destructive violence of weapons and equipment: air attacks, tanks, artillery, missiles, flame-throwers, etc.
- psychological shock of witnessing, widespread material and ecological destruction, the sight of the death or injuries of friends (particularly burn injuries) with a stress on the heavy number of casualties,
- and for the non-wounded fighter, the incidence of combat fatigue due to physical effort and intense stress in a context of a variety of aggressions such as physical shocks, vibrations, noise of weapons and explosion blast,
- excess fatigue and stress in sustained battle, with deprivation of sleep, rest, and at times, food and drink,
- long periods of anxious waiting in shelters or hermetically sealed tanks, in cramped positions,
- protracted wearing of masks and NBC protection with resulting loss of physical and psychological freedom and feeling of isolation (difficulties in communicating with friends),
- terror of possible attack by non-conventional weapons whose ill-known effects are feared in a mythical and irrational way beyond emotional control: fear of disappearing in the nuclear flash like the man from Hiroshima who turned into his mere shadow, or fear of slow death due to radiation or bacterial poisoning,

- loss of hope at the idea of being left helpless and powerless to counter such weapons, because of physical and mental debilitation due to radiation at sub-lethal doses, nausea with the impossibility of vomiting in gas masks, etc.

II - Consequences on psychiatric casualties.

The following consequences may be expected as regards psychiatric morbidity and the resulting loss in manpower:

- increased number of syndromes of combat exhaustion and increased proportion of severe forms which cannot recover in a short time (confusion, disorientation, dream-like illusions, etc.)

- increase in the number of immediate emotional combat reactions with, here, too, a higher proportion of severe forms of a psychotic type (bouffees delirantes, acute schizophrenias, mania and depressions) or neurotic type (intense anxiety and hysteria), as opposed to mild neurotic forms or sub-normal reactions which can be controlled and recuperated in a short time,

- increase in the number of anxious syndromes before combat (pre-combat syndrome) and resulting avoidance behaviors (fugues, suicide attempts, hypochondria, malingering) with consequently a decrease in combat readiness,

- appearance of a collective psychopathology with rumors, panic and catastrophic behaviors linked to the use or threatened use of non-conventional weapons of the NBC type; such pathology can be very disorganizing according to its extent (at the level of a small unit, a regiment or an urban center).

III - Examples of catastrophic or panic behaviors.

Military history offers only a very limited number of such examples, so that experts must resort to catastrophic events in peacetime as a material for systematic analysis and predictions. Such predictions, derived from civilian experience, may all be applied with some validity to wartime conditions, on the one hand, because the military takes part in the organization of succour in peacetime catastrophes, and on the other hand, because a wartime catastrophe in an urban setting would involve civilians as well as the military.

a. Civilian catastrophes in peacetime or wartime.

First lessons were drawn from studies of the earthquakes of San Francisco (W. James, 1906), Messina (Hartenberg, 1908), Corinth (Hesnard, 1919), and, more recently Skoplje (1961), Southern Italy (1980) and El Asnam (1980). Other observations were taken at other natural disasters (tidal waves, floods) or accidents (fire-clamp explosion in mines, fires in buildings or on ships). We shall study later incidents related to chemical industry (Sevezo) or nuclear industry (Three Mile Island).

The particular case of panic, either in open or closed spaces, was often studied: with the fire of Le Bazar de la Charite in Paris in 1897 (117 dead), the accident in the Couronnes subway station in Paris (1903, 80

dead), the football match in Lima (1964, 400 dead), the fire in a department store in Bruxelles (1967, 300 dead) and radio broadcast by Orson Welles of a landing by Martians in 1938 in New York state.

Wartime disasters are mainly air bombing of cities, torpedoing of merchant ships and massive exodus of civilian populations away from the front (bombing of Hamburg - 1943, Dresden - 1945 and Tokyo - 1945).

b. Military catastrophes caused by conventional weapons.

Collective catastrophic behaviors in the military may be observed in defeated or retreating armies after heavy fighting or bombings. We could mention here the retreat of the Italian army from Caporetto (1917) and the Anglo-French evacuation from Dunkirk (1940), or the patterns of evacuation of torpedoed or bombed ships.

In the extreme, similar instances may happen in victorious conditions: mutinies in the French army during the Nivelle offensive in 1917 or avoidance behaviors observed in Marines during the landing at Tarawa in November 1943 (Sherrod).

Panics are of special interest for their tendency to propagate and their consequences of disorganization. We could mention here the limited cases of panic reported by Brousseau in his thesis "la peur aux armées" ("fear in the armies"), 1919, and the more widespread panic which struck the entire 2d Colonial French Corps during the attack of the Chemin des Dames in April 1917 (an attack in the open with heavy losses against machine-guns); likewise the routs of the Russian army (July 1917) and the German army (1918). Other panics and flights have been observed in World War II and more recent conflicts.

c. Catastrophes linked with the use or threatened use of non-conventional weapons.

We shall give more attention to catastrophic behavior related to the use - or threatened use - of chemical or nuclear weapons.

The best known example is the panic which followed the first gas attack (chlorine cloud) at Ypres in April 1915. Medecin-Major Beliard was present at the attack and reported how the survivors were frightened at the sight of dead or agonizing friends, left their positions in a panic flight, even dropping their weapons to carry friends to safety and shouting "sauve qui peut." The development of protection and alarm systems prevented the repetition of such panics, but the threat of gas attacks continued to undermine the morale of troops for the duration of the war. A. Malraux described in "les noyers de l'Altenburg" the feelings of hopelessness, anxiety and fear induced, even in attackers, by the sight of soldiers killed or intoxicated by gas. Gas was not used in World War II, though the development of still more potent chemical weapons had been a worry to civil defense. The recent use of chemical weapons as defoliant, incapacitant or lethal agents should lead to more studies on their psychological effects (Vietnam, Yemen, Afghanistan). A common concern is that anxious soldiers could make a premature or thoughtless use of their atropine syringe for self-injection or valium with a consequent loss in combat capability.

The two atomic bombings on Hiroshima and Nagasaki in August 1944 are the only real examples of wartime nuclear disaster. The "specific" psychological nuclear effect was lacking in the two explosions since the population did not know in advance the nature of the bomb (to the possible exception of Japanese staff officers and a few "double survivors" who had been evacuated from Hiroshima to Nagasaki between the two explosions). The population thought it was attacked by a magnesium bomb ("pika-don" or "flash-explosion"). The knowledge of the bomb was only a factor in the capitulation decision of the government and Emperor who feared that a third atomic bomb might be dropped on Tokyo.

Behaviors observed in survivors (reported by Dr. Hashiya in Hiroshima and Dr. Nagai in Nagasaki) were made of shock-inhibition-stupor followed by a centrifugal collective movement which looked like behaviors following earthquakes (type Messina 1908), than the ones following cataclysmic convention bombings of cities.

Struck by the suddenness and violence of the flash and the nuclear explosion, survivors appear from under the rubble showing clouded, consciousness and loss of drive and initiative. They started walking away from the disaster, almost robot-like, silently and with no hurry, in long files going through the ruins towards the peripheries of the city.

Observers were impressed by the sight of those "processions of ghosts," "walking like ducks" with their arms held apart (because of burns).

Corpses were found jammed in swimming pools, which suggests a local panic in the forlorn hope of seeking protection against the heat effect. Though, no large scale panic was observed. On the contrary, the population showed self-control and even behaviors of mutual aid and sacrifice. We keep in mind the photograph of the Japanese soldier calmly helping others in spite of his own burn injuries and the story of the Emperor's portrait (when part of the crowd chose sacrifice to allow the Emperor's portrait to be evacuated).

We may think that troops submitted to a nuclear attack and exposed to irradiation at infra-lethal or not immediately lethal doses, may display the same self-control with the conservation of a relative efficiency and combativeness, in spite of the effect of shock and stupor.

Though, we must emphasize that the Japanese population was morally and psychologically very engaged in the war, that it was expecting a a bombing of the two cities (which were among the few cities to be still undamaged), and that women and children had already been evacuated and approximately one fourth of the houses demolished to cut firebreak avenues.

In Nagasaki, part of the medical and sanitary personnel are said to have fled to the periphery out of fright in front of the horror of the catastrophe, but regained control and returned rapidly to help with the administration of rescue. It was said also that varied post-catastrophic behaviors of violence or looting happened in Nagasaki (as was the case in Messina and Lima).

Several countries with nuclear weapons made observations about the behavior of troops during simulated exercises or real scale tests. But it is difficult to draw conclusions from such conditions in which security is assured and the psychological effect diminished in proportion. For a more realistic experiment, we would need to make the subjects believe that they are really irradiated.

During usual nuclear tests, we only observed isolated cases - quite often of predisposed subjects - who could not stand the wait before the experiment (for instance, the anxious who committed suicide by hanging six hours before H-hour at Reggane) or else who forgot to protect themselves against the flash of light and heat or the delayed blast effect (by leaving the shelters too early) and believing they were irradiated, developed syndromes of hypochondria, neurosis or even delusions.

Of greater interest are observations made during real nuclear incidents with a brutal psychological realization of the presence of danger. The authorities did not disclose these incidents at the time for reasons of military secrecy and the protection of morale. The incident of the French nuclear test at In'Amghel has been disclosed by the press since, and we can now use it to draw teachings.

During that subterranean nuclear explosion, irradiation leaked through a fissure in the ground and was detected by the immediate cracking of counters. There occurred then:

- On the one hand, adjusted behaviors of self-control (or at least, control of fear and anxiety) with pursuit of the mission and orderly withdrawal towards the decontaminating station. For instance, some participants were able to calculate the best possible way to the decontamination station and pass round the dangerous area. Others oblivious of the danger, put on their protective suits and started calmly toward the decontamination station, but on their way made a stop in the middle of the contaminated area and . . . took off their protective suits to be more comfortable for a snack.

- On the other hand, maladjusted behaviors, individual or collective. First, there were isolated cases of agitation, anxiety, or even prostrated confusion and stupor which needed medical help and evacuation to psychiatric settings. But, above all, there were collective behaviors of self-preservation with loss of self-control and beginning of panic. Some participants stormed vehicles and drivers drove straight away from the explosion until they ran out of gas. Throngs were massing around decontamination stations and blocking doors, others tried to be decontaminated twice. In the absence of real panic, we had here "disorganized catastrophic reaction," with loss of self-control, mental contagion, loss of group cohesion, disorganization of discipline and hierarchy, and appearance of uncontrolled reactions of self-preservation.

During that incident, we noticed that:

- subjects who had been informed and trained in exercises of protection, showed a better psychological resistance,

- the improvising of new decontamination stations had an effect of reassurance regardless of its technical efficiency.

On a larger scale, and in peacetime, we may also draw lessons from the incident of Three Mile Island (United States of America, 1981), concerning alarm, the spread of information, decision taking and the realization of the evacuation of an important population (one million people).

IV - Practical incidents.

Whatever the psychological specificity of mental representation of the chemical and nuclear aggression danger may be, it seems that the individual and collective reactions to catastrophe and panics in the conjuncture of modern warfare are no a different in nature from observed reactions in conventional war and in peacetime catastrophes.

The systematic study of these reactions has shown predisposing factors, facilitating and triggering (coming from the population officer for instance, the moral environment, the fatigue conjecture, the physical conditions of noise and violence, etc.). In the same way, it identified some steps (alarm, shock, reaction, resolution) and zones (impact, complete destruction, partial destruction, marginal zone), all elements which must permit bringing into play some preventive and curative measures.

Practically, and taking into consideration these studies which must be continued, the following arrangements may be provisionally remembered:

a. Previous information, as well as, school time, about the objectivity of conventional, atomic and chemical dangers and about protections and existing therapeutics.

b. Careful military selection, aiming at detection and elimination of mentally sick and psychically fragile individuals, subject to decompensations and origins of mental contagion.

c. Instruction and training of troops to the modern warfare environment, including NBC. The instruction reinforces the objective knowledge of dangers and their remedies. The training habituates the wearing of protective equipment and reinforces automatic behavioral responses (perhaps this is illusory, but it could aid in avoiding maladjusted behavioral responses during potentially catastrophic situations).

d. Reinforcement of leadership and the cohesion of groups. Exercises in leadership substitution. Exercises in panic reduction.

e. In case of real triggering of a catastrophe, with emergence of such behaviors, to put into place a sanitary cordon at periphery from which:

- the centrifugal exodus is filtered, marking and neutralizing the germs of mental contagion and employing the victims who are uninjured but in distress.

- the centripetal movement is filtered, by integration to aid organization and blocking the intrusion of useless organisms (curious,

families, journalists, pillagers).

- information is given to victims about the nature and gravity of the catastrophe, about the place where they are located, and about the place of the closest aid post where they will find help and instruction.

Calm, order, restitution of hierarchy, officerial leadership, and discipline are the main dispositions to avoid or block panic. Remember also that improvised aid posts, medical posts, disinfection and decontamination posts have not only technical effects but also psychological ones.

REFERENCES

Belenky, G. L., Newhouse, P., and Jones, F. D. Prevention and treatment of psychiatric casualties in the event of a war in Europe. International Review of the Army, Navy and Air Force Medical Service, Mars 1982, 55, 303-308.

Crocq, L. Guerre NBC et panique collective. Revue des Corps de Sante, II, 4, 1970, 483-495.

Crocq, L. Comment comprendre les comportements de catastrophe. Gazette Medicale de France, 78, 23, Juin 1971, 3757-3760.

Crocq, L. Secours psychologiques dans les catastrophes. Problemes de reanimation, 7eme serie, II, 395-402, S.P.E.I. ed., Paris, 1972.

Hesnard, A. Les troubles nerveux et psychiques consecutifs au tremblement de terre de Corinthe.

Hesnard, A. Les troubles nerveux et psychiques consecutifs a la guerre navale. Arch de Medecine Navale, Nov 1919.

Jones, F. D. Combat stress, a tripartite model. Intern. Review of the Army, Navy and Air Force Medical Service, Mars 1982, 55, 247-254.

Nachiya, M. Hiroshima diary. Univ. of North Carolina Press, 1955.

Hamon, H. Les psychoses collectives. Congres des Medecins Alienistes de L. Francaise, 1955, Masson ed., Paris.

Nagai, T. We of Nagasaki. Duell, Sloan and Pearce, ed. New York, 1951

BATTLE STRESS

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Battle stress is a universal phenomenon and to be stressed in a war situation is in itself entirely normal. I am not going to talk very much about Operation Corporate because I really want to try to look at some of the lessons we have to learn.

To set the scene regarding psychiatric states in war, one must first define them.

The first recognizable syndrome is battle shock or battle paralysis. This is an acute disabling transient experience, characterised by loss of will to act, withdrawal, apathy and confusion in varying degrees. Some individuals appear to be literally paralysed. There is anecdotal evidence that some personnel in HM Ships which suffered damage during Operation Corporate presented this clinical picture. In particular, dazed states and purposeless behaviour were described. None of these individuals appear to have had long-term problems and none to our knowledge presented later. Such transitory states are reported in military psychiatric literature, being associated with sudden intense bombardment and in particular with near-miss explosive events. It has never been replicated experimentally. It is not possible to eliminate these phenomena, but it is possible to reduce the incidence and possibly to expedite recovery. The only absolute way to avoid the problem is "don't get hit."

The second group are acute combat reactions. These relate to traumatic battle incidents and prevent effective purposeful, functioning. Confusion, apathy, and loss of volition are found in these cases but not to the same degree as in battle shock. Most exhibit exaggerated startle responses, subjective anxiety and depression. A wide range of symptoms may be present. The incidence is highest in inexperienced or previously over stressed troops. Tiredness, poor physical status, and hunger are also relevant. Inadequate training and leadership, loss of group integrity and other morale-sapping factors are relevant. This is an essentially reversible disorder if recognized. The majority are salvageable for combat duty in a 72-hour time scale, providing they are correctly managed. This state is to some degree preventable.

During Operation Corporate we have a very low incidence of these problems. Altogether we only saw twenty-one psychiatric cases on board UGANDA, and aboard CANBERRA they had a limited number as well. These were broken down to a very small number of combat related cases - in fact, only ten of the patients I saw there could have been labelled as specifically acute combat reactions. Possibly another two could have fallen into the same bracket, but I chose to call them "depressions associated with combat stress." These numbers are very small and there are a number of reasons why I think this was so. Had the numbers been much larger, we would have been in great difficulty because the psychiatric resources in my opinion, and in the opinion of my colleagues also, were wrongly deployed. In our view we should have been ashore in Ajax Bay where

the stressed individuals could have been returned to duty.

I think the the following reasons indicate why we had so little difficulty during Operation Corporate. We have a professional service with professional attitudes towards warfare. We had very highly selected troops, in particular, the Gurkhas, the Royal Marines and the Paras. There was a period of preparation. In other words, individuals were able to set themselves up for the war situation. We had an assault role, and this was particularly useful. We had very limited casualties so there was no dilution of the personnel by reinforcements. The morale was high because most people in the operation regarded it as being a justifiable cause and the individuals were, at the end of the conflict, still relatively fit because of the brevity of the campaign.

However, I think there were some potential risks at the time of surrender. Tiredness and fatigue were beginning to build up, climatic effects were beginning to affect morals and fitness, and casualties in the last phase were beginning to escalate. Now, talking to my Army colleagues, (we have discussed matters with particularly the Guards Regiments) we realize the difficulties were beginning to build up at the time of surrender.

The third group of battle stress casualties are combat exhaustion states. These present a similar picture to acute combat reactions but occur later in the combat experience of personnel. This is also a potentially preventable disorder which will respond to effective early treatment. Because of the nature of Operation Corporate, these states did not have time to emerge; and it is perhaps of significance that in forward planning, acute combat reactions are anticipated rather than combat exhaustion in a European war. Do we take a risk here of going for a rigid scenario?

Fourthly, underlying psychiatric illness may be exposed or precipitated by combat. The only preventive measure for this is screening of vulnerable individuals. Treatment is of the exposed illness. From our experience on Operation Corporate, screening could have been of little value.

Of lesser relevance during combat but of later significance was the delayed reactions. We have had some fifty-four cases of late psychiatric disorder presenting since the conflict, and these are cases where we think the Falklands experience had something to do with them as a precipitator of the illness. Some fifteen individuals in the Royal Navy and Royal Marines are still under surveillance. This is of very little relevance during the battle - we wondered why these individuals have shown up now. In some cases we feel it's because either their return to duty has been delayed or premature, in other words Hobson's choice. You can be wrong whichever way you play it, and there are no very clear guidelines as to when you should send people back to stress. These delayed reactions are psychiatric syndromes presented after combat through which the individual had apparently progressed without difficulty. In the light of Corporate experience few of these cases would have been identified at screening. Late reactions were probably less common in an ongoing way, where there was a higher commitment on the part of individuals than in our peacetime setting.

Essentially, for the remainder of my time I want to talk about prevention and treatment. Areas for intervention exist in management, training and treatment.

The management task is to provide the most protective emotional environment possible. This can be achieved by the following:

First, the avoidance of risk. This is an operational decision and outside the scope of this paper. As already stated "don't get hit" is the only sure prevention.

It is essential that personnel are provided with ships and equipment in which they have confidence. This includes a wide range of factors such as fire retard uniforms, effective anti-flash gear, adequate life-saving equipment, as well as, an effective weapons system.

Activity is important. War is always ninety per cent boredom. Purposeful activity is extremely important but difficult to achieve. This is where ingenuity comes in.

Information is essential if morale is to be maintained. Information in ships varied from SS UGANDA, where the BBC World Service news was cut off to "maintain morale," in spite of my professional advice to the contrary, to SS CANBERRA "news on the hour, every hour" and a flood of local information from the Senior Naval Officer. I think there was a drop in morale where access to information was discontinued.

Two-way communication is important if the individual is not to feel isolated. Problems of internal communication in HM ships need to be looked at more actively.

Team leadership is an area which needs re-examination. Leader selection and training and, in particular, training in morale maintenance is essential.

Unlike the Army, we do not form and retain cohesive teams. At present sailors are an amorphous group. They join and leave ships on trickle drafting. They form different teams in action roles and this tends to isolate the individual and make him vulnerable. A stable cohesive group is of particular importance if battle morale is to be maintained. Perhaps we have to come back to Nelson's gun crews who fought and died as a team. In my opinion, trickle drafting should be avoided as this delays group integration.

Many sailors joined the deployed fleet without any idea of their war-like role. There is a need to make a stronger emphasis of the Navy's war-like purpose. This warlike role is emphasized to the Royal Marines and the Paras; it is significant that these groups were relatively unscathed in combat. One Chief Petty Officer said to me recently, "Sir, I had not realized that I had been grey-funnel cruising for twenty-five years; all that changed when COVENTRY sank under me." This is different from the Paras and other groups where they have a tight group.

The war role may be reinforced by more realistic and comprehensive exercises involving the whole ship's company. Many current Naval exercises

involve a relatively small executive group. Limited use of live firings may lead to individuals becoming gun-shy.

Rest and exhaustion. There is considerable anecdotal evidence of Command and PWO groups going short of sleep and working excessive periods. If you want deteriorated decision-making, go ahead. If not, working practices need modification. Attention span is limited and ability to cope with competitive stimuli is possibly at its limits in the modern Operations Room. Should there be a long war, tasks need to be simplified.

Highly stressed people are over-loaded with extraneous tasks such as divisional duties. I think that we need a ship's manager devoted just to domestic affairs. We cannot play peace roles in war.

Now to move on to training. Battle hardening can be ensured by realistic graded exercises to build up confidence. To achieve this one has to increase the perceived risk for the individual exercised, as in the Marines and the Paras. Perceived risk is something different from real risk. There is a penalty because increasing the reality of experience entails greater real risk taking. There is a need for unexpected exercises with a perceived risk to either the self or the ship. This has penalties but allows for screening as well as confidence building. There is a need to expose individuals to more realistic battle exercises with live ammunition. There is a need for more realistic casualty exercises with realistic mock injuries. Combat psychiatric states need to be recognized readily by lay individuals so that early responses can be undertaken. Medical and dental officers already have some training indoctrination on these syndromes. The Command perhaps needs to be more informed of these syndromes. Teaching has to be undertaken on Divisional Officer and Senior Rates Courses and also at Leadership Schools. This entails the training of lecturers to carry out these tasks. Training exercises need to be undertaken with appropriate psychiatric casualties during work-up. Unexpected casualty care exercises need to be carried out.

To end my message, we were very lucky in the Falklands for a number of reasons that I have already outlined. I don't think we are necessarily going to be so lucky in the future, and we have to look at battle hardening and the preservation of morale.

OBSERVATIONS OF THE EMOTIONAL EFFECTS OF A MILITARY CATASTROPHE

Surgeon Lieutenant D. J. Ward, Royal Navy

I joined HMS SHEFFIELD, as Squadron Medical Officer, in November 1981, for her departure to the Gulf of Oman. I came to know her as an efficient and happy ship in whom the majority of the crew had served for some time, and we were all looking forward to returning home after five months, when, only four days from home, we were diverted south on the second of April.

During the journey to the Falklands we made our preparations for war. I remember the mood at the time as one of quiet confidence. Sick bay attendances dropped off dramatically, reaching some four fresh cases a week prior to entering the Total Exclusion Zone on the thirtieth of April, and through the early air raids we quickly adjusted to our role as anti-air picket.

Early in the afternoon on the fourth of May, with the ship at defense stations, the second state of readiness, and the normal wartime cruising state with half the ship's company stood down, the ship was hit midships by an Exocet missile launched from a Super Etendard. The subsequent fire spread out of control, forcing the crew to abandon ship from four and one half hours later. Twenty members of the ship's company lost their lives. The number injured totalled 43 with four serious burn casualties and the rest with relatively minor injuries, flesh burns of a sunburn nature or shock.

In a previous presentation I described these casualties as suffering from battle shock, but in retrospect they fall into the spectrum of normal physiological or emotional stress response to disaster. The spread of fire and smoke quickly confined the crew to the upper decks, and here those with stigmata of injury or shock were readily identified. With the rapid arrival and availability of helicopters, and we are deeply indebted to those air crews, it is no discredit to the casualties themselves that they found themselves rapidly case evacuated thus following the principle of segregation of injured and shocked from the active personnel in the interests of morale. Given different circumstances many of these may have returned to duty, as were some, in a lesser degree of shock, motivated by directed orders. There were also injured who simply ignored their injuries and escaped the attention of the first-aid teams.

At an hour after lunch, a soporific time, with most of those off watch asleep in preparation for a long night, it is not hard to realize what an impact the missile had. You can imagine the effect on a group of senior rates relaxing over a game of "uckers" (a mafia version of ludo for uninitiated) who found themselves first flung into the air, then pursued from the compartment by flames. My own feeling in that split second was one of incredulity and that we have suffered some accident in our own weaponry. Thus the majority of the crew were deprived of their primary tasking, their specific job, on which they could focus their attention amidst such catastrophe. Many were, of course, involved in damage control and fire fighting operations, and it is a great credit to the ship's company and their training that they performed so valiantly, with many being justly

rewarded. In the medical branch, we are fortunate to have such a specific role in such circumstances, and I was privileged to have such a capable Petty Officer Medical Assistant as Jed Meager.

The observation made by one of my colleagues under similar circumstances was that men could perform their own specialist tasks of duties that they could reasonably be expected to do, but were incapable of original thought or deed. This supports the Russian belief that clear and reasoned thinking is one of the first casualties of stress, the last thing to go being the well rehearsed drills. In the first few minutes I found myself dressing a burn and had to make a conscious decision to stop and hand over to a first aider, to allow me to move on. I undoubtedly benefited from the Combat Casualty Care Course I attended prior to the deployment.

With the subsequent abandoning of the ship, we became HMS SHEFFIELD survivors, seared as indelibly in our minds as it was to be stamped later across our temporary I.D. and rail cards on our return. Physically drained from the sustained activity and stress in a cold environment, we had time to ponder our loss. Loss of ship, at once work place and home, all belongings and, most importantly, absent shipmates.

Hot food and dry clothing relieved the physical discomfort, but a sense of security was absent. During the air raid warning red on the way to rejoin the Task Force aboard HMS ARROW, no member of the crew could remain in the mess decks below one deck, and some were on the bridge in inflated life jackets. Most displayed increased startle reaction to noise that took many days to resolve. We were finally emotionally sunk by the knowledge that the loss of the SHEFFIELD had been announced on the 9 o'clock news, at a time when they were still compiling lists of survivors, in addition to rumors that the crew were to be split up among ships of the Task Force.

Such is human resilience, however, that the next night, having been split into two groups aboard the Royal Fleet Auxiliaries, FORT AUSTIN and RESOURCE, independently held alcoholic wakes were instrumental in a rapid recovery. The sense of identity in remaining together as a unit was tremendous, as evident to anyone who could have witnessed the later reunion with our Captain. It was unfortunate that we could not have been with him for the burial of the one crew member recovered.

Such is modern warfare that the opportunity to provide another ship will not be possible, and so we remained an impotent force, relatively starved of the detailed information of the conflict to which we had been accustomed and which we now craved. In the three weeks elapsing before our return to the United Kingdom via the Motor Vessel BRITISH ESK, although without a sickbay, I saw very few medical and no overt psychiatric problems. The time provided ample opportunity for the crew to talk among themselves.

Although with no overt increase in neurotic symptomatology paralleling the findings in civilian populations after both peacetime and wartime disasters, we must expect problems in the future, if only because unlike civilians, we will be exposed to very similar circumstances in the future.

We also have a great gulf in the real understanding our families can have for the events of such a distant war.

I have subsequently seen two survivors of other ships exhibit problems under stress. One youngster was found crying on the quarterdeck and was grateful for someone to talk to, and did integrate into his new ship. The other was a senior rate whose enuresis and long standing alcohol problems ostracized him from his mess. He required psychiatric referral.

As for myself, I had partly selfish reasons for remaining with the squadron, and although I found my first week aboard another Type 42 destroyer distinctly uncomfortable and, in particular, action stations alarms startling, I found the opportunity to visit the Falkland Islands and to be present on the first remembrance Sunday after the conflict, at anchor in San Carlos, most beneficial. I'm sure no less so than the later visit by relatives of those lost.

None of these observations are in any way unique, and the principles of providing security, physical comfort, a time for grieving, retaining units together, and finally an opportunity to return to action, are as important as the principles of battle surgery.

THE FALKLANDS: RATE OF BRITISH PSYCHIATRIC COMBAT CASUALTIES
COMPARED TO RECENT AMERICAN WARS

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ABSTRACT

This paper examines factors leading to the low rate of combat psychiatric casualties in the British recapture of the Falklands compared to the American experience in North Africa, Italy, Europe, and South Pacific theatres during World War II, the Korean Conflict and Vietnam. The factors compared are those thought to affect rates seen in these past wars. The factors highlighted are psychiatric screening of evacuees, presence of possible occult psychiatric casualties such as frostbite and malaria, amount of indirect fire and offensive or defensive nature of the combat. A unique aspect of the Falklands War examined is the exclusive use of hospital ships to treat psychiatric casualties and the impact of Geneva Convention rules regarding hospital ships on the classic treatment principles of proximity and expectancy. The types and numbers of various diagnoses are also presented.

The British campaign in the Falklands produced a remarkably low rate of psychiatric casualties. When viewed in light of American experience in recent wars, this low rate represents a concentration of optimal factors leading to healthy function in combat. The results of this war should not be used to predict a similar outcome in future combat as this particular constellation of factors may not recur.

THE FALKLANDS: RATE OF BRITISH PSYCHIATRIC COMBAT CASUALTIES COMPARED TO RECENT AMERICAN WARS

The Falklands War is described by Surgeon Commander Scott-Brown, one of the Navy psychiatrists involved, as a 20th century reincarnation of the Afghan Wars or the 1896 Sudan Expedition.¹⁸ Despite the technological advances of naval and air warfare in this conflict such as Exocet missiles and Harrier jets, the land war was fought without many of the weapons used in recent wars. There was little use of heavy armor or helicopter gunships. General Thompson, the land force commander, said, "The only difference between Hannibal and us is that he went by elephant and we are going to walk."¹⁹ And walk they did, carrying most of their supplies due to the poor road system on East Falkland.

During the course of the war which lasted a total of 74 days with a 25 day land campaign from the landing at San Carlos water to the capture of Stanley, the British lost 237 men killed, 777 wounded with 446 receiving significant hospital treatment. The rate of evacuated psychiatric casualties was 2% of all wounded with 16 cases evacuated from the hospital ship, Uganda. This rate compares favorably to the American experience in recent wars, i.e., 23% of medical evacuees were psychiatric casualties in World War II, 6% in Korea and 5% in the early stages of the Vietnam War, reaching a high of 60% during the drug epidemic of 1972.^{21,11} The Falklands produced a low rate of psychiatric casualties. This paper will examine the factors which the American experience suggests affect psychiatric casualty rates, two of which were not present in the Falklands and six factors which were.

Factors not Present:

The low psychiatric casualty rate in the Falklands is significant in that two factors believed to have decreased psychiatric casualties in American experiences were not present in this campaign, i.e. the presence of psychiatric personnel in line units and psychiatric screening of all evacuees.

Due to the psychiatric disaster in the American Army during the Tunisian Campaign in 1943, psychiatrists were sent to corps level, then further forward to evacuation hospital level during the Sicily Invasion. On 9 November 1943, the War Department reestablished the position of division psychiatrist with the first division psychiatrist reaching a division at Anzio in March 1944. The increasing forward assignment of psychiatrists during World War II coincided with, and perhaps led to, a decrease in psychiatric casualties. However, even as late as August 1945, only seven out of seventeen divisions in the Southwest Pacific had division psychiatrists.⁴ During Korea, within six to eight weeks of the onset of fighting, division psychiatry became operational.⁸ By the time of Vietnam, there were more psychiatrists in the theatre per Army troop strength than in any previous war.²¹ Though Abraham has written extensively on the treatment of battleshock (the British term for psychiatric combat casualties) and has proposed the development of Battleshock Rehabilitation Units at division level supported by Field Psychiatric Teams, these have not yet been fully organized.¹ There are no behavioral science personnel attached to British line units corresponding to the division psychiatrist,

psychologist, social worker, and enlisted behavioral science technician (91G) in the U.S. Army. No Royal Army Medical Corps psychiatrists were invited to the Falklands.

Psychiatric screening of medical evacuees has also been found to decrease rates of psychiatric casualties in the American Army. During the New Georgia Campaign in the Pacific during July and August 1943 in one division involved no screening of evacuees occurred in the 43rd Infantry Division. This division had large numbers of psychiatric casualties as well as medical evacuees subsequently found to have psychiatric disorders at base hospitals.³ This division lost 10% of its strength during one month due to N-P casualties. It is reported that men actually "tagged" and medically evacuated themselves to rear bases. In another division, the 37th Infantry Division, also on New Georgia and taking the same amount of physical casualties, all psychiatric cases were screened by the division psychiatrist producing a negligible N-P evacuation rate.³ During the Korean War and the Vietnam War, all psychiatric evacuees were screened by psychiatrists except for drug abuse cases evacuated from Vietnam through Drug Rehabilitation Centers run for the most part by internists or general medical officers.¹¹ No psychiatric screening occurred in the Falklands because the two Royal Navy psychiatrists present were aboard ship for the duration of the conflict, one aboard the hospital ship, Uganda, and one aboard the Canberra, a troopship with a 50-bed hospital.^{16, 17}

One was to have been placed in a mobile field hospital, but as all tents were lost in the sinking of the Atlantic Conveyor, the hospital was set up in a refrigeration plant at Ajax Bay primarily for surgical cases. All psychiatric casualties were evacuated to the Uganda. Though the British have a similar understanding of combat psychiatric casualties and their treatment¹ as do American psychiatrists, the location of the psychiatrists was not optimal for the rapid return to duty of cases. The Geneva Convention prohibits return of troops to combat directly from a hospital ship; therefore, casualties were sent by ambulance ship to the neutral port of Montevideo and then to Britain by aircraft. Once aboard the Uganda at San Carlos Water, the evacuee was as good as home in Britain despite the 8,000 mile distance.

The Canberra, on the other hand, was legally a troopship and thus a legitimate military target by Geneva Convention rules. Consequently, after offloading troops and equipment during the landings on 21 May and taking on some casualties, it was sent the next day to the east of the total exclusion zone out of range of land-based Argentine aircraft. If the British had been able to obtain complete air superiority, the Canberra could have been kept closer to the land battle medical evacuation chain and used for the treatment of psychiatric casualties and their return directly to combat.

Of the 16 psychiatric cases evacuated to the Uganda, Scott-Brown reported that four were battleshock cases, four had formal psychiatric illnesses precipitated by combat, all of which were depressed, four were survivor reactions with bereavement and fear of minor trauma, and four were cases of hyperventilation and depression without exposure to land combat.¹⁸ The battleshock cases were treated with rest, warmth, food and small group therapy. The psychiatrist aboard took charge of 250-bed low dependence ward and performed many consultation-liaison activities such as pain control consults and amputation counseling.

Surgeon Commander Morgan O'Connell, the psychiatrist on the Canberra, consulted on eight cases. One was a case of bereavement, one with psychosomatic chest pain with family stresses, two cases of alcohol abuse, one case of acute paranoid schizophrenia with a previous history of hospitalization, two homosexual civilian ship's crew members with depression and a Senior Sergeant with disseminated sclerosis. He was also involved in preventive psychiatric group work with survivors of the Ardent after-section, as well as the Special Air Service Company which lost 19 men in a helicopter crash. Only the bereavement case had been involved in the land combat; his helicopter crashed and the pilot died in his arms under heavy fire from Argentines.¹⁶

Despite the absence of psychiatrists ashore or in line units and the lack of psychiatric screening of evacuees, all of which were removed from combat and sent to Britain, the Falklands Campaign still produced the remarkably low rate of 2% psychiatric cases of all medical cases. When viewed in light of the American experience in the past three wars, this low rate represents a concentration of optimal factors leading to healthy functioning in combat.

There are five optimal factors which appear important, but first a look at an important factor which while decreasing the rate of diagnosed psychiatric casualties, leads to their evacuation under other diagnoses.

Occult Psychiatric Casualties:

Marlowe (1979) pointed out that during World War II "severe combat that produced few people who were labeled by the Medical department as combat psychiatric casualties, also produced compensatorily large numbers of personnel withdrawn from battle for frostbite, illness or light injury, as well as AWOL and self-inflicted wounds."¹⁵ The low number of psychiatric casualties in the British campaign may have been offset by the fact that 20% of all land casualties were due to immersion foot.⁶ A number of exposure cases, however, occurred when the landing ship, Sir Galahad, was bombed at bluff Cove with the survivors escaping through the water becoming casualties with no voluntary component to their condition. Therefore, the number of occult psychiatric casualties may have been negligible.

In a climate very similar to the Falklands, when the 7th Infantry Division invaded Attu in the Aleutians in May 1943, large numbers of cold casualties occurred in a campaign lasting 21 days. This division, desert trained with neither proper training nor clothing for the cold, wet weather, suffered 553 KIA, 1,154 wounded, 2,205 diseased, of which 1,518 were frostbite and trenchfoot. The North Pacific theatre had the lowest overall psychiatric casualty rate of the war.⁷ In the European theatre during World War II and again in Korea, frostbite was also noted to be an evacuation syndrome.

Evacuation of psychiatric casualties has occurred under organic diagnoses such as "blast concussion," and diarrhea. In Italy after the invasion at Salerno in September 1943, the incidence of diarrhea increased by one third in the 5th Army, "Most patients recovered promptly after three to five days regardless of whether sulfonamides or bismuth or Paregoric

were used."⁵ the ratio of diagnosed psychiatric casualties to battle casualties was one to eight. Later in the Italian campaign with more thorough evaluation, the ratio rose to one out of four to five battle casualties.⁵ At times command pressure influenced diagnosing of psychiatric casualties. On Guadalcanal in 1942, general Patch, commanding the American Division, insisted on courtmartialing officers with neuropsychiatric diagnoses. The division psychiatrist, serving also as the division surgeon, circumvented this by labeling these cases as "blast concussion."¹³ During the Iwo Jima campaign a high incidence of "blast concussion" evacuees occurred in Marine units. It was suspected that this was an attempt to decrease incidence of "combat fatigue."¹⁷

Malaria during World War II was another example of an evacuation syndrome preventable by taking Atebrine. On Guadalcanal in November 1942, so many men were lost due to malaria that all men with temperatures up to 103 degrees were ordered to remain in combat. This caused much resentment towards "healthy" N-P casualties.¹³ Again in the battle for Buna, New Guinea in 1942, the 32nd and 41st Infantry Divisions, born without psychiatrists, overwhelmed forward treatment centers with malaria and diarrhea cases.⁴ By December 1942, the Southwest Pacific theatre psychiatry consultant reported 42.7% of cases evacuated to the United States were psychiatric. In the past, when no possibility of evacuation existed, rates of psychiatric casualties and other evacuation syndromes were low. On Battan in 1942, little psychiatric disease occurred despite heavy fighting, lack of food and inevitable defeat.²

During the Vietnam War most psychiatric evacuees were screened by the "K-O" teams. "Drug abuse became a kind of evacuation syndrome with most of these patients becoming casualties only on the basis of the positive urine screening."¹¹

This paper will now examine five optimal factors in the American experience which were present in the Falklands War.

Elite Units:

The British troops involved were from elite units such as the Marine Battalions, Special Air Service Regiment, Paratroop Regiment, Special Boat Service, Guards and Gurkha. These units have been serving together for years, the majority having seen service in North Ireland. The men knew their leaders and vice versa; strong group cohesion existed. The units were not dispersed and they fought together. Similarly, low rates of psychiatric casualties have occurred in American Elite Units. During the breakout from the Anzio beachhead in Italy in 1944, the 1st Special Service Force, a brigade of American and Canadian volunteers, suffered a minimum of psychiatric casualties while taking heavy physical casualties.⁹ Also in Italy, the 100th Infantry Battalion composed of Japanese-Americans from Hawaii suffered 109 battle casualties in a two-week period with only one psychiatric casualty.⁹ The 442nd Regimental Combat Team also made up of Japanese-Americans had a similarly low rate.⁹ The three Airborne Divisions fighting in Europe during World War II never had a neuropsychiatric casualty rate higher than 5.6% of battle casualties.¹⁴ It should be noted, however, that in the Vietnam War, the rate of psychiatric casualties did not increase when regular Army volunteer troops were replaced by draftees in 1967.¹¹

Duration of Combat:

The Falkland land campaign lasted only 25 days. Brief duration of combat exposure has, in American wars, been associated with low N-P casualty rates. During the invasion of Saipan, in a campaign of short duration from 19 June to 12 July 1944, the 27th Infantry Division had relatively few cases of psychiatric illness consisting of 5.6% of all admissions despite intense combat and heavy physical casualties.¹² The low incidence of "combat exhaustion" type cases of World War II during the Korean conflict has been attributed to the rotation policy of 12 months in the combat zone.

This factor alone cannot always be relied upon to produce low rates. Twenty-four hours after the newly arrived American Division went on the offensive at Guadalcanal, one third of the 350 casualties at the clearing station were psychiatric.³ Later during the New Georgia Campaign, 70% of the total N-P casualties occurred during the first month, 26% in the second, and 4% in the third and final month.¹⁰ This decreasing incidence was due to improved screening of casualties but was also due to the changing character of the combat as the island was cleared. On Okinawa, in April 1945, after an initial period of light combat and relatively unopposed landings, the psychiatric casualty rate rose on the third day of intense combat.¹⁴ Of 100 psychiatric cases evacuated to Saipan, a large subgroup consisted of men with over 140 days combat in the theatre.¹⁴ Psychiatric casualties can occur early in a campaign in men with previous combat.

Indirect Fire:

In American wars the presence of indirect fire is associated with increased N-P rates. The British force experienced no heavy bombardments, no intense counter attacks, and intermittent air attack. No psychiatric casualties occurred while the Task Force was at sea despite the threat from Exocets and Argentine fighters. Similarly, during the voyage to Okinawa, no psychiatric problems arose in troops due to the heavy Kamikaze attacks.¹⁴ However, once landed at Okinawa, 13.3% of all admissions were psychiatric cases. This was attributed to concentrated heavy artillery fire.¹⁴ At Anzio the rate of N-P casualties rose in support troops for the first time due to heavy continuous bombardment of the surrounded beachhead.⁹ Later in Italy, the 88th Infantry Division in 22 days of combat in the Volterra area was under severe artillery fire and the N-P casualty rate was 24% with a high incidence of diarrhea as well.⁹ Lack of exposure to artillery barrages has been suggested as one factor in the low psychiatric casualty rate in American troops in Vietnam.²¹

Unopposed Landing:

The most vulnerable moment for the British was the initial landing at San Carlos Water. The Argentines who had the opportunity to move in units to oppose the landing did not take the initiative. Heavy fighting at the beachhead as at Anzio and Salerno leads to heavy physical casualties and psychiatric casualties. When the 31st Infantry Division invaded Mindanao at the Parang beachhead in the Philippines, 25% of the initial 400 casualties were psychiatric.²

Offensive vs Defensive Posture:

The British were constantly on the offensive in a mobile fluid advance primarily fighting with light infantry weapons. After the improvised battle at Goose Green in which the 600 marines of 2 Para Battalion captured 1,400 argentinians while losing their commanding officer, it was decided by the British command to fully prepare for the final assault on the defensive perimeter around Stanley where the Argentinians had withdrawn.

Rapidly advancing troops experience low psychiatric casualty rates. During 3rd Army's sweep across France in August 1944, the rate of psychiatric casualties was 7.4% of non-fatal casualties.²⁰ In Italy during the pursuit to the Gothic line, the advancing 34th Infantry Division troops had low rates of psychiatric breakdown despite severe physical fatigue in four days of marked fighting alternating with periods of no fighting during which it took heavy physical casualties. Under favorable tactical circumstances, even in the presence of severe fatigue and wounded rates, low N-P rates tend to occur.

In Vietnam as the posture changed from offensive operations to more defensive withdrawal, the rate of psychiatric casualties increased despite the overall decrease in combat participation.

Summary:

The low rate of British psychiatric casualties in the Falklands was due to a number of positive factors: The use of elite units, short duration of combat, little exposure to indirect fire, an unopposed landing and a consistently successful offensive posture; all of which influenced the rate of psychiatric casualties in past American wars. This low rate occurred despite the absence of any psychiatrists on land during the campaign and the absence of psychiatric screening of evacuees. The combination of favorable factors occurring in this conflict is not likely to occur in the most predictable future American conflict, a high intensity European war. The low rate of psychiatric casualties experienced by the British should not decrease planning and training for dealing with these casualties in any future conflict involving either the British or U. S. Army.

BIBLIOGRAPHY

1. Abraham, P., "Training for Battleshock," *Journal of the Royal Army Medical Corps*, 128 (1982), pp 18-27.
2. Beaton, L. E. and Kaufman, M. R., "As We Remember It," in Glass, A. J. and Mullins, M. S., (eds), *Neuropsychiatry in World War II, Vol II, Overseas Theatres*. Washington, D.C., U.S. Government Printing Office, 1973, pp 739-797.
3. Billings, E. G., "South Pacific Base Command," in Glass, A. J. and Mullins, M. S., (eds), *Neuropsychiatry in World War II, Vol II, Overseas Theatres*. Washington, D. C., U. S. Government Printing Office, 1973, pp. 473-512.
4. Callman, S. A. and Davidson, H. A., "Southwest Pacific Area," in Glass, A. J. and Mullins, M. S. (eds), *Neuropsychiatry in world War II, vol II, Overseas Theatres*. Washington, D. C., U. S. Government Printing Office, 1973, pp 513-577.
5. Drayer, C. S., and Glass, A. J., "Italian Campaign (9 September 1943 - 1 March 1944), Psychiatry Established at Army Level," in Glass, A. J. and Mullins, M. S., (eds), *Neuropsychiatry in World War II, Vol II, Overseas Theatres*. Washington, D. C., U. S. Government Printing Office, 1973, pp 25-45.
6. "Lessons of Falklands: Prepare for Surprises," *U. S. Medicine*, Feb 1, 1983, p. 3.
7. Frank, R. L., "Alaska and the Aleutians (North Pacific Area)," in Glass, A. J. and Mullins, M. S. (eds), *Neuropsychiatry in World War II, Vol II Overseas Theatres*, Washington, D. C., U. S. Government Printing Office, 1973, pp 681-737.
8. Glass, A. J., "Psychotherapy in the Combat Zone," *American Journal of Psychiatry*, April 1954, pp 725-731.
9. Glass, A. J. and Drayer, C. S., "Italian Campaign (1 March 1944 - 2 March 1945), Psychiatry Established at Division Level," in Glass, A. J. and Mullins, M. S. (eds), *Neuropsychiatry in World War II, Vol II, Overseas Theatres*, Washington, D. C., U. S. Government Printing Office, 1973, pp 47-108.
10. Hallam, F. T., "War Neurosis-Report by XIV Corps Surgeon." in Glass, A. J. and Mullins, M. S. (eds), *Neuropsychiatry in World War II, Vol II, Overseas Theatres*, Washington, D. C., U. S. Government Printing Office, 1973, pp 1063-1069.
11. Jones, F. D. and Johnson, A. W., "Medical and Psychiatric Treatment Policy and Practice in Vietnam," *Journal of Social Issues*, 1975, Vol 31, Number 4, pp 49-65.

12. Kaufman, M. R. "Central Pacific Area," in Glass, A. J. and Mullins, M.S. (eds), Neuropsychiatry in World War II, Vol II, Overseas Theatres, Washington, D. C., U. S. Government Printing Office, 1973, pp 579-592.
13. Kaufman, M. R. and Beaton, L. E., "South Pacific Area," in Glass, A. J. and Mullins, M. S. (eds), Neuropsychiatry in World War II, Vol II, Overseas Theatres, Washington, D. C., U. S. Government Printing Office, 1973, pp 429-471.
14. Markey, O. B., "Tenth U. S. Army," in Glass, A. J. and Mullins, M. S. (eds) Neuropsychiatry in World War II, Vol II, Overseas Theatres, Washington, D. C., U. S. Government Printing Office, 1973, pp 639-679.
15. Marlow, D., "Cohesion, Anticipated Breakdown, and Endurance in Battle: Considerations for Severe and High Intensity Combat," Unpublished, Department of Military Psychiatry, Walter Reed Army Institute of Research, 1979, p 14.
16. O'Connell, M., "Psychiatrists at War," Paper presented at Symposium on Military Psychiatry, Royal Army Medical College, Millbank, Sep 30, 1982.
17. Rottersman, W. and Peltz, W., "Western Pacific Base Command," in Glass, A. J. and Mullins, M. S. (eds), Neuropsychiatry in World War II, Vol II, Overseas Theatres, Washington, D. C., U. S. Government Printing Office, 1973, pp 592-621.
18. Scott-Brown, A. Presentation, Symposium on Military Psychiatry, Royal Army Medical College, Millbank, Sep 30, 1982.
19. Sunday Times of London Insight Team, War in the Falklands: The Full Story, Harper and Row, New York, 1982.
20. Thompson, L. J., Talking to, P. L., Ludwig, A. O., "Neuropsychiatry at Army and Division Levels," in Glass, A. J. and Mullins, M. S. (eds), Neuropsychiatry in World War II, Vol II, Overseas Theatres, Washington, D. C., U. S. Government Printing Office, 1973, pp 275-373.
21. Tiffany, W. J. and Allerton, W. S., "Army Psychiatry in the Mid-60's," American Journal of Psychiatry, 1967, 123, pp 812-813.

STRESS CASUALTIES IN THE FALKLANDS LAND FORCE

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The merit of presenting an account of the Falklands Conflict at a Conference such as this is that it refers to real and recent events. The problem is that the process of collecting information from scattered medical personnel, casualty lists, and medical records is a lengthy one, and since it is barely half a year since the Islands were retaken that process is incomplete. So the following is inevitably a limited picture.

The Falklands, a territory nearly the same size as Israel but as cold, bleak, wet and windy as this country is warm, dry and sunny. It is separated from the home base in Britain by a distance equal to the radius of the earth. Not an alluring place for most people but then, of course, the conflict was not about property but about people and principles.

Just as there is little protection from the weather so also is there little protection from shell fragments or bullets from snipers with night sights. Unless, of course, one can find a bit of bog, can in spite of cold and fatigue dig a hole in it, and then sit in the puddle thus formed. A curious conflict, fought with missiles but also fought by hand even using the old fashioned bayonet. The hills round the principal objectives were held in depth by some of the enemy's toughest troops. The attacking forces were subject to accurate artillery, machine gun and sniper fire.

It is difficult for those who, like the speaker, did not take part in the land battle to recover the Falklands to realize how ferociously each engagement was fought. These encounters, and the battle of which they formed a part, were mercifully curtailed. Had they lasted longer, the number of those whose inability to fight was not attributable to injury or sickness would have escalated alarmingly. The chief reason for this assertion is that the number of such battle shock cases is inexorably linked to the number of wounded, and as the fabric of the unit is eroded by casualties, both physical and psychological, so does it become harder for the remainder to sustain themselves and each other in the face of bombardment and bereavement. Fortunately the same arithmetic applied with even more force to the enemy.

In order to support this claim that the number of battle shock cases was about to achieve significant proportions, it is necessary to show that the law linking the incidence of battle shock to the incidence of wounding did in fact hold in this particular force and that the number of wounded and of stress reactions was rising. In this connection it is submitted that those whose disability began with and was attributable to the battle, but became manifest after it, can with equal justice be included with the list of those whose disorder was recognized at the time, since it was merely the timing of the surrender which determined which group they fell into.

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Since we wish to focus on the immediate military implications of adequate management of battle shock or the lack of it, those whose disability was predominantly physical, albeit with a significant stress reaction in addition, will be excluded, as will those many survivors of traumatic incidents, like the attack on the Sir Galahad, who were for a time dazed and uncoordinated, or the survivors of another incident who received prophylactic group therapy from a Naval specialist without the necessity for being listed as casualties. However, individuals who were clearly recognized by the medical personnel present as being rendered ineffective by battle shock, whether or not they were listed under such a label or even listed at all, have been included. (As always there was an occasional conspiracy to hide the fact of psychological breakdown under the cloak of a physical disorder such as a sprained ankle. In fact, of the cases covered in this limited study only one was unequivocally listed as battle shock. In a third of the cases battle shock featured in the evacuating diagnosis, generally with a medical or surgical label as well.)

The Army took about half the casualties in the conflict and about half of these were sustained by the three battalions under study. These battalions are amongst the finest fighting units to be found anywhere. Training is tough, cohesion tight, leadership strong. Motivation and morale were acknowledged to be good. Commanders held the initiative and understood well the need to ensure respite for their own troops while denying it to the enemy. It is chastening to record that the ratio of battle shock to wounded still amounted to between five and ten per cent. The percentage could well have been higher had not some of the cardinal principles of the management of battle shock been successfully observed within the battalions, either deliberately or accidentally. Two officers were recognized very soon after a particularly stressful experience to be changed men and not functioning effectively. They were transferred to another less crucial task within the battalion and in a day or two returned to their original role. Some soldiers who reported with cold injury, which was perhaps less severe than their fellows who remained outside the aid post, nevertheless received warmth and rest, and encouragement from medics and others similarly affected to return to the fray, which they did successfully.

It may be argued that with such small numbers it matters not militarily and little from the humanitarian point of view whether the cases were managed successfully or not. This overlooks the fact that changing any one of the favorable factors mentioned, including the shortness of the war and the limited number of wounded, would have dramatically altered the picture. The majority of the injured and a third of the stress reactions were sustained by the three battalions during the final assault on the inner ring of mountains around Port Stanley. What would have happened if the battle had lasted another two or three days? With perhaps a third of the battalion out of action, whether or not a section or two of physically fit men get back to effective duty begins to matter. Furthermore, a third of the casualties were key men, the successful return to their original role of any one of whom would have justified the precious place in the land force of a man whose skills were devoted to this task.

There were no such specialized medical personnel ashore. In addition, communications were difficult, a situation compounded by the peculiar arrangements of the Geneva Convention whereby once a casualty

reached a hospital ship, he was forbidden to return to the war. These circumstances negated the fundamental principles of early forward intervention and rapid return to duty. In the Falklands, battle shock casualties who left their units did not return to active duty. It is probably also fair to say that some of those occurring within the battalions could have been better managed, even though some previous knowledge of the subject was hurriedly amplified on the journey South.

Would there always be time to do this? It is contended that the management of psychological problems in battle should be an integral part of First Aid Training of all medical personnel and all junior leaders, officers and NCOs. It is further contended that there should be a specialized presence forward with a field medical unit. The Israeli Defence Force has recently proved yet again the efficacy of this policy in Lebanon, but only because they had organized and trained for it in peacetime.

If we do not adopt these twin measures, we might not be so lucky next time.

I would like to end by referring to those in a medical role, who formed a third of this particular group of casualties. It is that they are more vulnerable people or that their reactions are more readily observed by other medical personnel with whom they are working? Is it the contact with dead and dismembered companions which is overwhelming, especially if coupled with an inability to rescue them? Certainly those who worked in the surgical teams who knew the casualties less intimately and who were able to do something effective demonstrated a remarkable resilience. The hospital was bombed early on before battle was joined. One bomb exploded, killing people: two others remained embedded unexploded for the rest of the war. During that time the two Army surgical teams operated on 144 patients (including 29 Argentinians) of whom all but one survived.

MENTAL HEALTH PROBLEMS OF MEN WHO SERVED IN OPERATION CORPORATE

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In the Falklands conflict there were between five and ten psychiatric casualties for every hundred wounded.

Most of these recovered but some had lingering effects of which the following are fairly typical.

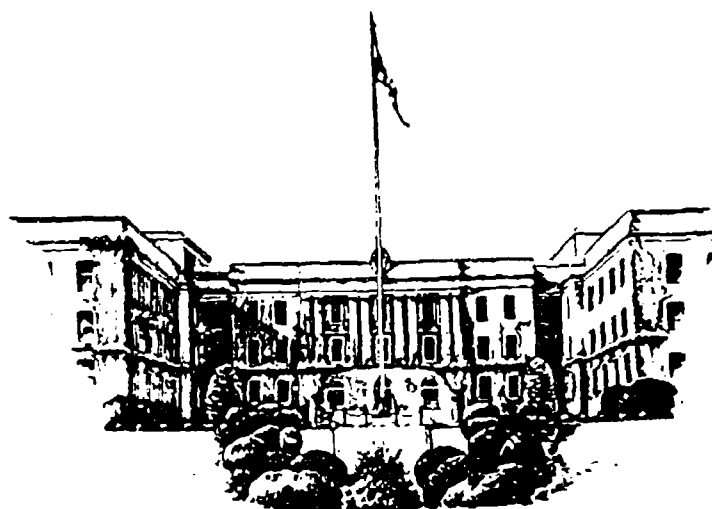
One was a stable healthy man who joined the Army in August 1981 and completed his training in December 1981. He did not serve in Northern Ireland nor had he taken part in any substantial exercises. In May 1982 he landed at San Carlos during an aerial bombardment. He trudged for two hours over bog and rock feeling extremely anxious with his heart pounding. He gasped for breath, blacked out and remembered nothing for the next six hours until he came to in a field hospital. By the time he got to Wroughton in June he was seen again in Out-patients in September, he was despondent, reacting slowly to stimuli. He lacked confidence. Energy and concentration were deficient. He was occasionally agitated, irritable and felt aggressive. His hands trembled so that he spilled tea and sometimes could not write. He was discharged from the Army the same year.

Another man of eight years service, including South Armagh, insisted on joining Operation Corporate despite a knee injury. He was being treated for this when the hospital at Ajax Bay was bombed. He saved two men, pulled out a body which had been blown in two and was then blown into the air himself. The following day he was slow and dazed. Despite his protests he was medically evacuated and then began to have nightmares, depression, headaches and aggressive irritability affecting his friends and family. He parted company with the Army last year on account of his knee but his mental symptoms continued.

As has been pointed out already many others have already made a full recovery. Others still have developed delayed reactions of a less dramatic nature. Fairly typical of this is the following: A man of basically stable personality, mentioned in despatches, was employed as a stretcher bearer. He survived a bombardment in which friends of his died. The platoon sergeant whom he knew and respected was mortally wounded and he was unable to save him. He continued to perform his duties in a somewhat dazed and ineffective manner. While on leave he developed headaches, dizziness, ringing in the ears and hypochondriasis, and irritability with family and friends. He was involved in several brushes with authority of a not too heinous character, but these resulted in his being discharged from the service.

He and others like him have responded to treatment by the Army's psychiatric service at the Queen Elizabeth Hospital at Woolwich and elsewhere and have received considerable support from regimental Army and national welfare organizations but will continue to need practical help after leaving the Services.

Israeli Battle Shock Casualties : 1973 and 1982



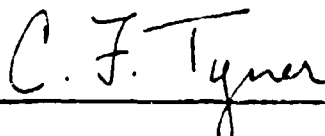
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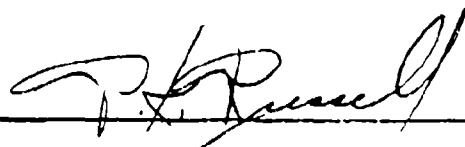
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ISRAELI BATTLE SHOCK CASUALTIES: 1973 AND 1982

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PREFACE

This paper is one of a series of occasional, informal accounts of work in the Division of Neuropsychiatry at the Walter Reed Army Institute of Research. The reports generally address topics in Army preventive medicine for which implementation responsibility lies significantly outside the Medical Department. Although their contents may overlap partly with our publications in the scientific literature, most papers are based on trip reports, briefings, and consultations involving specific Army audiences. Comments to the senior author are welcome.

This work was supported by Research Area III -- Health Hazards of Military Systems and Combat Operations -- of the U.S. Army Medical Research and Development Command; MG Garrison Rapmund, Commanding.

This report is based on four visits to Israel: June 1978, June 1982, January 1983, and April 1983. The material is taken from presentations by the Israelis during the Second and Third International Conferences on Psychological Stress and Adjustment in Time of War and Peace (1978, 1983) and from discussions with psychologists and psychiatrists of the Israeli Defense Force (IDF).

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INTRODUCTION

Psychiatric casualties are a large source of manpower loss in modern warfare. They were first well described in the beginning of this century. Since then, much has been learned about the nature, prevention, and treatment of psychiatric casualties from anecdotal accounts, from trial and error clinical treatment, and from both retrospective and prospective studies. The formula of prevention based on good morale, treatment based on immediate attention near the front, and rapid return to combat duty, is a useful distillation of the experiences of the past. This may suggest, incorrectly, that everything needed is known about the nature, prevention, and treatment of combat psychiatric casualties. As conflicts become shorter, more intense, and more fluid, however, psychiatric casualties emerge more rapidly, appearing within hours after the beginning of hostilities. Treating psychiatric casualties near the front and returning them to duty becomes more difficult. The importance of combat psychiatry, while remembered in principle, tends to be forgotten in the practical business of planning for possible future wars.

The experiences of the Israelis during the 1973 Arab-Israeli War and the 1982 war in Lebanon have confirmed the basic principles of combat psychiatry. In addition, new information has emerged which refines these principles and suggests important, unanswered questions on the nature, treatment, and prevention of combat psychiatric casualties.

BATTLE SHOCK CASUALTIES DURING THE 1973 ARAB-ISRAELI WAR

Casualty Generation

The 1973 Arab-Israeli War was short and intense. It lasted approximately 4 weeks, caused heavy casualties, consumed vast quantities of military materiel, and in its early phases was fought twenty-four hours a day. Battles were mobile and fluid, with armor, infantry, artillery, and air support attempting to work in close coordination. The Israelis were taken by surprise, nearly overrun by sheer numbers of men and masses of equipment, and initially

forced to retreat. Even as they were retreating, the Israelis fought resourcefully and tenaciously with great tactical flexibility and personal initiative. Due in part to the inflexibility of their adversaries, the Israelis were able to mobilize their reserves, gain tactical initiative, and exploit it to regain their original positions.

The Israeli Defense Force (IDF) suffered a relatively high rate of psychiatric casualties (termed "battle shock" casualties in this paper) during the 1973 war. Psychiatric casualties in battle are generally expressed as a ratio of the psychiatric casualties to the wounded in action. Immediately after the 1973 war, the ratio of psychiatric casualties to wounded in action (WIA) was given officially as 14:100 or 12.5% of all non-fatal casualties. Upon reexamination, however, the Israelis found this figure low: the actual ratio was approximately 30:100, or 23% of all non-fatal casualties (Noy, personal communication). The revised figure includes those formally recorded as battle shock (the originally reported 12.5% of casualties), those not formally so recorded but nevertheless suffering from battle shock, some late reactions, and battle shock in the wounded.

Treatment and Outcome

The 1973 war was the first in which the Israelis sustained significant numbers of battle shock casualties. In prior wars, the number of such casualties had been low, treatment informal, and hence, at the time of the 1973 war, no formal doctrinal or organizational provisions had been made for the treatment of battle shock. As a result, during the 1973 war, all battle shock casualties were evacuated to the rear. Most were treated in civilian hospitals. Only a few returned to combat duty during the war. For many, recovery was slow and disability prolonged.

Post-War Analyses

The Israelis were stunned by the suddenness and intensity of the attack and by the number of physical and psychiatric casualties sustained in the 1973 war. The conflict was described by the IDF Surgeon General as a demographic disaster for Israel, because so many capable people were killed (Dolev, personal communication). The

number of battle shock casualties was high relative to the experience of the IDF in prior wars. Following the war, in cooperation with Israeli academic institutions, the IDF subjected itself to intense scrutiny. It was hampered by a lack of systematic record keeping during the war as a result of which valuable information was lost. Nevertheless, the results of this self-scrutiny led to the development of doctrine for treating battle shock casualties and for collecting better combat data. These were subsequently applied during the 1982 war in Lebanon.

Casualty Classification. The Israelis reviewed the literature on combat psychiatry and combined their own observations from the war with those of others from previous wars into a coherent clinical picture of combat psychiatric casualties (Noy 1978a). They drew a distinction between battle shock ("combat reaction" in Israeli terminology) and battle fatigue. Battle shock -- defined as a simple emotional reaction to the stress of battle -- developed after hours or days of intense combat. In contrast, battle fatigue developed after weeks or months of moderate combat. In the 1973 war and later in the 1982 war in Lebanon (see below), psychiatric casualties took the form of battle shock. Battle shock progressed through three stages. The first or immediate stage lasted hours to days and was characterized by anxiety, depression, and fear. The majority of soldiers with battle shock recovered during the immediate stage. Those who did not recover passed into the second, or acute stage, which was characterized by the emergence of neurotic symptoms consistent with the soldier's pre-war personality. This stage lasted for days to weeks and recovery was still likely. If treatment in the acute stage failed, the soldier passed into the third, or chronic stage which was characterized by personality impoverishment and chronic psychiatric disability. This stage was of extended duration and recovery was slow and often incomplete.

Delayed Battle Shock. In the 1973 war, the Israelis observed a new form of battle psychiatric casualty: delayed battle shock (Baruch, personal communication). Some soldiers who had done well during intense fighting broke down upon receiving their first telephone call from home, or broke down when home on their first leave. Delayed battle shock also emerged in another form. This other form occurred on the Suez front. Battle shock casualties on this front were evacuated initially to military hospitals in the middle of the Sinai. There, soldiers suffering battle shock rested for 2-3 days, recovered, and were ready to

return to duty. However, because no provision had been made to return them to their units, the men were then further evacuated to Tel Aviv or Jerusalem. These soldiers frequently suffered second, more serious, decompensations during the latter evacuation (Noy, personal communication).

Battlefield Factors. The Israelis observed that the intensity of fighting, more so than its duration, produced battle shock. Battle shock cases were numerous during the first hours and days of the 1973 war; and highest during the crossing of the Suez Canal when indirect fire (artillery and rockets) was the most intense. When intensity was extreme, battle shock emerged before the onset of significant fatigue or sleep deprivation. Parenthetically, even under the most severe battle conditions, Israeli soldiers appeared to manage 3-4 hours sleep in every 24. The risk of battle shock, in addition to varying with battle intensity, varied, in combat units, with the soldier's combat role. Battle shock was most prevalent in armored units, intermediately prevalent in artillery units, and least prevalent in infantry units. The high prevalence in armored units was probably a result of their being engaged in the most intense combat. Overall, reservists were more vulnerable than active service soldiers; and soldiers from support units were more vulnerable than combat troops. Thus, battle intensity, primarily, and the soldier's battle role, secondarily, were the factors related to battle shock.

Pre-War Factors. The Israelis conducted a retrospective examination of 40 IDF soldiers who suffered battle shock during the 1973 war (Noy 1978b). Each had received treatment during the acute stage of the syndrome. With regard to completeness of recovery, as of a year or two after the war, 45% had no difficulties, 31% had some difficulties, 21% had many difficulties, and 3% had severe difficulties. Thirty-five percent of the men with battle shock had been seriously wounded. In 70% of this wounded group, the physical injury was a direct cause of the battle shock. Forty percent of the men with battle shock reported minimal group cohesion and unit identification and a high incidence of interpersonal difficulties with members of their unit, contrasted with 10% in a control group of men not suffering battle shock. Prior or ongoing civil stresses were found in 80% of the cases of battle shock. Fifty percent of the battle shock cases had wives who were pregnant, or who had given birth within the year preceding the war. In 23% of the cases, there had been a recent death in the immediate family. Other apparently relevant

civil stresses were being newly married, taking on a mortgage, having sick parents, or sustaining a serious personal loss.

In contrast to their role in causing battle shock, neither the presence nor the severity of combat or civilian stresses bore any relationship to likelihood of recovery (Noy 1978b). There was, however, a significant correlation between the likelihood for recovery and the soldier's personality. For the purposes of the study, each soldier was classified as having a stable, a transitional, or a repressed personality. Well adjusted men in untroubled life circumstances were classified as stable. Men facing developmental crises, generally in their late teens or late 30's and early 40's, were classified as transitional. Men who dealt with anger or anxiety with repression, and denied having felt anger at any time in their adult lives (self-reports confirmed through interviews with their families), were classified as emotionally repressed. As civilians, those with repressed personalities lived in communities containing large numbers of transient persons, communities in which there was significant personal and group maladjustment. These soldiers with repressed personalities had the poorest prognosis for recovery among the three personality groupings. Those with transitional personalities had a somewhat better prognosis. Those with stable personalities had the best prognosis and generally recovered from the acute stage (Noy 1978b).

The above study concluded that interpersonal difficulties within the unit and prior or ongoing civil stresses modulated the potency of battle stresses in generating battle shock. Soldiers who lacked cohesive bonds with comrades, or who had stressful home situations (for reasons ranging from recent births to recent deaths), were more vulnerable to battle shock. Personality type was not a predictor of becoming a psychiatric casualty. Once breakdown occurred, however, soldiers with better adjusted personalities were more likely to recover.

The Israelis also did a retrospective comparison of morale factors and social supports, both military and civilian, between soldiers who suffered battle shock and those who emerged from intense battle psychiatrically unscathed (Steiner and Neuman 1978). In contrast to the unscathed group, the men who suffered battle shock reported low morale, characterized by little or no identification with their unit or team, no trust in their leadership,

frequent transfer and rotation, feelings of loneliness and of not belonging to their unit, and finally, low self esteem regarding their military performance. It appeared that all of the above factors contributed to the development of battle shock. In contrast, high morale characterized by positive social support, group identification, stability of assignment, and high regard for one's work appeared to protect against battle shock even during intense fighting.

Treatment in Prior Wars. The Israelis found two treatments for battle shock described in the combat psychiatry literature. One consisted of rest and supportive psychotherapy at or near the front and a rapid return to combat duty. Supportive psychotherapy entails a brief recounting of events by the patient, coupled with reassurance from the therapist. The second treatment consisted of releasing tension and suppressed emotions through extensive conscious examination and by reliving the combat trauma in imagination, words, or action. In psychoanalytic terms, this latter treatment is called abreaction. The method of a brief rest and return to duty has been used near the front in military medical units. The method of abreaction has been used in rear areas in civilian hospitals. Until the Israeli review, no attempt had been made to integrate these two techniques and to provide differential indications for their use (Noy 1978a). The Israeli review suggested that rest and support near the front, and abreaction in the rear were appropriate therapy for different stages of battle shock. Accordingly, rest and supportive psychotherapy with rapid return to combat duty were concluded to be the treatment of choice for the immediate stage of battle shock; but if this treatment were to fail, and the person were to pass into the acute stage, then evacuation to the rear and abreaction would be indicated.

Israeli Civilian Treatment. Most 1973 battle shock casualties, whether they broke down at the front, on the way home, or at home, were treated in civilian hospitals. Treatment in a civilian hospital clearly promoted disability: soldiers on the verge of coping were undermined by the acceptance, pity, and empathy of the civilian hospital staff. These observations underscored the value of prompt, brief treatment near the front and rapid return to duty.

Heroism. The Israelis analyzed the situational and personal variables associated with heroic behavior (Gal 1978). They found no personality type prone to heroism.

Rather, they found that certain situations invariably called forth heroic behavior. Aspects of these hero-producing situations were good morale (as indicated by the presence of good leadership and strong unit cohesion) and intense combat stress. They studied 72 soldiers who received medals for valor during the 1973 Arab-Israeli War. These soldiers were compared to a control group matched by unit and rank on a variety of measures of personality, performance, and cognitive ability. In turn, each heroic act was studied for the presence or absence of a number of variables: isolation, being in command, commander present, saving the wounded, type of battle, heroic act as the result of an explicit command, being surrounded, few against many, and saving the lives of others.

Analysis of the personal characteristics of the medal recipients revealed age as the characteristic most readily distinguishing the heroes from the non-heroes: the heroes were younger. Associated findings were that the heroes were less often married, and if married less likely to have children. The heroes also showed higher intelligence, motivation, overall rating on personality factors, and higher army course scores. There were no differences in educational achievement or physical fitness.

Analysis of the situational factors revealed four clusters of situational variables associated with heroic acts. In the first cluster, the men were surrounded, outnumbered, defending, and retreating. They were acting together when the heroic act was performed. The commander was the hero, or the commander was present; the heroic act occurred while breaking out of an encirclement. In the second cluster, the men were in a face-to-face battle and the hero was saving the lives of the wounded. The commander was absent and the hero was psychologically isolated from his comrades. The hero remained alive while saving others. In the third cluster, the men were a few against the many. It was the hero's regular unit and he died saving the lives of his friends. The fourth cluster found the hero alone, fighting in an offensive battle to the last bullet. He was not under clear orders. He was not fighting to save himself or others. He died alone. Ten to twenty cases fit into each cluster. The clusters accounted for approximately two-thirds of the cases of heroism. The remaining cases were sufficiently unique that common situational factors did not emerge.

The Israelis concluded that heroes were not clearly distinguishable from non-heroes. They fell generally into the upper quartile of overall scores and test results. The heroes were generally officers or noncommissioned officers who had good, but not perfect military records. Most had shown some resistance to military authority in the form of being absent without leave, or being disciplined for breaches of military regulations, at some point in their military service. The Israelis concluded that there was no specific personality associated with being a medal recipient, and that with regard to personality "we all are at risk for heroism" (Gal 1978).

The results of the above study show that heroes are not unique. The study suggests that there are certain characteristic situations which call forth heroism. In all these situations, the heroes were involved in intense combat. In the first three of the four situational clusters, and perhaps in the fourth, key situational factors were good leadership and strong unit cohesion. Heroic soldiers were not the most obedient; some resistance to military authority appeared to foster heroic behavior. Overall, the study demonstrates that high morale as indicated by strong unit cohesion and good unit leadership calls forth the best from soldiers in combat.

Conclusions. The studies undertaken by the Israelis following the 1973 war show that battle shock can emerge very quickly if fighting is sufficiently intense; that delayed battle shock can be a significant problem; that low morale and prior or ongoing civilian stress, particularly family turmoil, can predispose to becoming a battle shock casualty; that forward treatment is likely to be more successful than rear or civilian treatment; and that morale factors such as small unit leadership and cohesion are important in maximizing performance in battle as well as in minimizing psychiatric casualties.

Plans for the Future

On the basis of the analyses of their experience in 1973, the Israelis adopted the U.S. doctrine for treating combat psychiatric casualties: a brief rest near the front with rapid return to the unit. They delineated the following principles: hold and treat briefly battle shock cases as far forward as possible. Evacuate by ground ambulance, and not by helicopter, to ensure local evacuation and to

maintain psychological proximity to the front. Organize in advance for the holding, treating, and returning to duty of battle shock cases. Inform unit commanders to expect battle shock casualties and to expect these casualties to return to the unit after brief treatment. Minimize battle shock casualties by ensuring good morale -- specifically good unit cohesion and strong leadership -- and ensuring stable family and community life. If immediate treatment near the front is unsuccessful and further evacuation is required, maximize the chance of eventual recovery and minimize the risk of chronic disability by evacuating to convalescent camps where military discipline is maintained. And finally, plan for accurate and relevant record keeping during wartime so that information can be gathered and later evaluated.

The IDF instituted several relevant organizational changes after the 1973 war. A psychiatric team was assigned to each medical battalion at the division level. This team was to provide the first echelon of treatment for battle shock. The team would hold battle shock casualties for 24 to 72 hours. A second echelon of treatment was planned to be located in military camps in Israel, away from civilian hospitals. The soldiers treated there were to wear uniforms and to conform to military discipline. Activities were to include military drill, abreactive therapy, and sports. Maximum stay was to be two weeks. These camps were to provide strong expectation of return to duty, to avoid the demoralizing effects of a permissive civilian environment, and to provide therapy in the form of abreaction. The Israelis also planned to train their psychiatrists and psychologists -- the bulk of whom were reservists -- to treat battle shock by means of brief forward treatment.

Summary

The 1973 Arab-Israeli War was the first war in which the Israelis sustained psychiatric casualties in significant numbers. These casualties emerged in the first hours and days of the fighting and where the battle was most intense. The casualties took the form of battle shock rather than battle fatigue. The Israelis were unprepared to treat these casualties. All were evacuated to the rear; many were treated in civilian hospitals; many became chronically disabled. On the basis of their experience, combined with their review of the literature, the Israelis

planned future use of the U.S. doctrine for treating battle shock: a brief rest near the front with a rapid return to the combat unit. During the war in Lebanon in 1982 these plans were put to the test.

BATTLE SHOCK CASUALTIES DURING THE 1982 WAR IN LEBANON

Casualty Generation

The 1982 war in Lebanon differed qualitatively and quantitatively from the 1973 Arab-Israeli War. The 1982 conflict was fought at the time and in the manner chosen by the Israelis. It was fought on one front. Israeli preparation was thorough. The war engaged only a portion of the IDF, and did not stress its logistic support. Reserve medical personnel, including mental health officers, received training in IDF medical doctrine and field operations prior to the war. Mental health officers were trained in the doctrine of forward treatment of battle shock casualties and practiced the application of this doctrine in medical field exercises.

For the war in Lebanon, the IDF planned three axes of northward advance -- western, along the coastal plain, central, along the spine of the Lebanon Mountains, and, if the Syrians intervened, eastern, up through the Bekaa Valley. The Syrians did engage, and the IDF fought along all three axes. The advance along the coastal plain presented the problems of military operations in urban terrain, and the advance along the spine of the Lebanon mountains and up through the Bekaa presented the problems of military operations in mountainous and broken terrain. These military operations were conducted from 6 June 1982 until the cease fire at noon on 11 June 1982. There was a further period of fighting from 21-26 June 1982, when the IDF cut the Beirut-Damascus Road. Most of the IDF casualties, including the psychiatric casualties, were sustained during these two periods of active fighting.

Despite the excellent preparation by the IDF, the war was hard fought. The Palestine Liberation Organization (PLO) units, fighting in the built-up urban areas along the coastal plain, evaded IDF envelopments, fought retrograde

actions along the western axis, and retreated with the bulk of their personnel to Beirut. The Syrian commandos in the Lebanon Mountains, supported by regular Syrian forces, blocked the IDF advance along the central axis. Syrian armored forces in the Bekaa, while sustaining heavy casualties themselves, slowed the IDF advance along the eastern axis, and caused many Israeli casualties.

During the period of June-December 1982, the IDF suffered 2600 wounded and 465 killed in Lebanon (Dolev, personal communication; Table 1). Of the wounded, 80% were evacuated past the Advanced Medical Battalion (AMB) to Israel proper. These casualties were treated in Israeli civilian hospitals. Their injuries were not necessarily severe, but in the IDF Medical Corps there is a predilection for rapid rearward evacuation -- preferably by air -- of even minor casualties to enhance the mobility of the forward medical units. This predilection for rapid rearward evacuation increased the difficulty of holding and treating psychiatric casualties forward within the division area.

During the period of June-December 1982, the IDF sustained 600 psychiatric casualties (Shipler 1983; Table 2). This figure includes battle shock (i.e. pure emotional reaction to the stress of battle); mixed syndromes (i.e. emotional reaction to the stress of battle combined with an underlying personality disorder); delayed psychiatric casualties (i.e. emotional reaction to the stress of battle and mixed syndromes following demobilization or while home on pass); and battle shock and mixed syndromes in the wounded. Overall, the bulk of the cases were battle shock. For the IDF in Lebanon, the psychiatric casualty to wounded ratio was 23:100 (in actual numbers 600:2600). During the 1973 war, the ratio was higher, approximately 30:100. It appears that for an equivalent degree of combat stress, as indicated by the relative number of wounded, psychiatric casualties were lower during the 1982 war in Lebanon than during the 1973 Arab-Israeli War.

Ten percent of all psychiatric casualties occurred among wounded soldiers (Noy, personal communication; Table 2). Psychiatric disturbances were found in both the lightly and seriously wounded. The brevity of the intense fighting in Lebanon and the rotation of soldiers out of combat after one or two battles may account for this. In the 1982 war, a wounded soldier was not much more rapidly removed from the combat zone than a non-wounded soldier:

all IDF soldiers in Lebanon were "short timers."

In addition to the psychiatric casualties at the front, psychiatric breakdown occurred in men who had been demobilized or who were home on leave (Noy, personal communication). It is customary, tactical situation permitting, to rapidly demobilize, or at least to give 48 hours home leave, to units recently engaged in difficult actions. During the fighting in Lebanon, a number of units were demobilized or received passes in this manner. Some soldiers, following demobilization or while home on pass, broke down and became psychiatric casualties. Their symptoms and signs were repetitive thoughts and images of the war, and crying, loss of appetite, and sleeplessness. The soldiers were unable to account for these except, in a general way, to relate them to the war. They were referred for treatment to the IDF Mental Health Clinic in central Israel. The soldiers' descriptions of their experiences in Lebanon invariably revealed traumatic events or sequences of traumatic events preceding the emotional turmoil. In the opinion of IDF psychiatrists and psychologists, these soldiers' emotional reactions would have been less severe had they remained with their units in Lebanon (Noy, personal communication). In their view, rapid demobilization and passes weakened soldiers' supportive ties with their units, reduced their ability to cope with their combat experiences, and thereby created psychiatric casualties of soldiers who would not otherwise have broken down. Since the majority of these soldiers were sent home because their entire unit had been demobilized, IDF mental health personnel rejected the idea that the soldiers were primarily those sent home because their commanders recognized in them the signs of incipient breakdown or that the symptoms and signs developed because the soldiers were afraid to return to the front. There were many such cases of delayed psychiatric breakdown seen at the IDF Central Mental Health Clinic.

Treatment and Outcome

Casualty Classification. The clinical symptoms reported by psychiatric casualties in Lebanon were similar to those reported by U.S. forces in World War I, World War II, and the Korean War, and by Israeli forces during the 1973 war, but different from those reported by U.S. forces in Vietnam (Bar-On et al. 1983; Tables 3 and 4). Pure battle shock was characterized by anxiety, depression, sleep

disturbance, and fear. Battle shock casualties appeared in the first few days of combat and cases continued to emerge as the fighting continued. In most cases, the soldiers who broke down had been engaged in heavy fighting and had gone without sleep for two or more days. Cases were more numerous where the fighting was intense and the physical casualties high. Tactical errors by commanders, being ambushed, or being hit by friendly fire increased the incidence of battle shock. Immediately preceding events were intense combat, seeing friends or one's own commander wounded or killed, and one's own close escape from death.

Treatment Plans. Following the 1973 war, the IDF adopted the U.S. principles of forward treatment for psychiatric casualties. Prior to the war in Lebanon, the IDF Mental Health Department planned to treat psychiatric casualties forward at the level of the Advanced Medical Battalion (AMB). Each AMB supports a division and is located from 2 to 20 kilometers to the rear of the fighting. The IDF had conducted education and training, including field exercises, for the forward mental health teams. Each five-member team consisted of one psychiatrist, one psychologist, and three other mental health officers, either psychologists or social workers. According to IDF plans, psychiatric casualties were to be seen first at the battalion aid station, and, if they required more than an hour or two of rest, then they were to be evacuated by ground ambulance to the AMB. There, the forward mental health treatment team would hold casualties 48 to 72 hours before either returning them to their units or, if they were unimproved, evacuating them further rearward. The treatment was to consist of physical replenishment (water, food, and sleep) and supportive individual and group psychotherapy. The psychiatric casualties were to be treated as soldiers, made responsible for their own maintenance, and required to keep their personal weapons.

Realization. Many cases of battle shock were sufficiently mild to be treated with an hour or two of rest at the battalion aid station and then to be returned to their units. No records were kept of these cases, and so they are not included in the statistics in this paper. The remaining cases were evacuated beyond the battalion aid station, entered into the statistical records, and treated either forward at the AMB or rearward in Israel, as will be described below.

Despite the plan for forward treatment, not all psychi-

atric casualties were treated close to the front. Some were treated in central and northern Israel. This was due to a lack of awareness on the part of battalion surgeons of the importance of forward treatment and to the general pressure they exerted for rapid rearward evacuation, and to the tactical situation in Lebanon where the military traffic moving forward along narrow roads through steep-walled valleys made local ground evacuation difficult. Evacuation from the battalion aid station for both the wounded and the psychiatric casualties was therefore frequently by helicopter. Once on board a helicopter, casualties were flown directly back to civilian hospitals in Israel, bypassing the AMB. Psychiatric casualties were evacuated with the wounded, by ground or air -- if by ground then to the AMB, if by air then to Israel. Approximately half of the psychiatric casualties reached the AMB, while half reached civilian hospitals in Israel. This assignment to air or ground evacuation was random. The IDF quickly realized that psychiatric casualties were arriving at civilian hospitals and a second echelon treatment facility was put into operation in northern Israel. Treatment teams there were organized to provide brief treatment similar to that used forward. Thus, the treatment of psychiatric casualties offered a comparison of the effectiveness of forward and rearward treatments (Noy, Solomon, and Benbenishti 1983; Table 5).

The doctrine of forward treatment applied by the IDF for the first time during the war in Lebanon proved effective. A few aggressive teams returned 95% of battle shock cases to duty with their units (Enoch et al. 1983; Noy, personal communication). The method of one of the teams is representative (Enoch et al. 1983). Initially, this team would conduct an interview to establish where the soldier had been, what he had done, and what had happened to him. This interview was oriented objectively rather than toward thoughts and feelings. The team confirmed two of the observations made in previous wars. First, thoughts and feelings inevitably followed the description of the objective events. Second, just describing what had happened clarified events and reduced the emotional turmoil. The team would allocate the next 6-8 hours of treatment to physical replenishment (water, food, and rest). Then the soldier was given useful tasks to do and invited to join in supportive individual and group psychotherapy. Next, the team arranged for comrades from the soldier's unit and for the unit commander to visit the soldier. Then the soldier himself was taken to visit the unit. In these ways, mutual confidence between the soldier and his unit was

restored. When the soldier had recovered enough to return to the unit, the team would arrange for comrades from his unit to pick him up. This team took advantage of its proximity to the front and the soldier's unit to maximize expectation that he would return and to reinforce the soldier's links to his comrades and commander. The team observed that units were happy to receive the soldier back, confirming the finding from other sources that under stress group members prefer someone they know to someone they do not know, regardless of presumed competence. With respect to themselves, the members of the psychiatric team noted that, because of their proximity to the front, they were all afraid. However, sharing the dangers of combat with the soldiers being treated reduced their reluctance to return a soldier to his unit. They noted that their fear was diminished to the degree that the AMB commander was competent in ensuring their supplies of gasoline and other essentials. When this was not the case, they became more afraid, hoarded supplies, and saw their clinical effectiveness decline. The team observed their tendency to over-identify with the soldier they were treating; to want to be the "good father", and to protect their new found "son" from harm. This difficulty was reduced through once-a-day staff meetings for the purpose of discussing cases, providing mutual support, and working through emotional conflicts (Enoch et al. 1983).

The Israelis observed that the psychiatric symptoms changed from the time the soldier broke down at the front to the time he arrived at the AMB (Bar-On et al. 1983). At the front most soldiers suffering psychiatric breakdown complained of inability to perform -- termed by the Israelis "the ticket out" of combat, while upon reaching the AMB they complained of difficulties with thoughts and feelings -- termed "the ticket in" to treatment. The Israelis concluded that severity of initial symptoms had little to do with prognosis for recovery; the most important indicator of a good prognosis was the soldier's labeling himself as healthy, taking initiative in his own care, helping others, and helping run the treatment team's area (Enoch et al. 1983).

A problem in the application of the doctrine of forward treatment during the war in Lebanon was the pressure for rearward evacuation at both the battalion aid station and the AMB. The battalion aid stations were moving frequently and as a result the battalion surgeons evacuated everyone they could, wounded or not, rearward. If evacuation was by helicopter, the casualties were flown directly back to

Israel, bypassing the AMB. Similar pressures for evacuation existed at the AMB. In one instance, a small group of psychiatric casualties at an AMB was "whisked away" by a medevac helicopter from the care of the division psychiatrist who was planning to hold them there for treatment. The IDF subsequently instituted several changes in policy. First, no helicopter pilot may accept an unwounded soldier on a medevac flight. Second, no unwounded soldier may be evacuated by either ground or air beyond the level of the AMB. Also, the Mental Health Department is conducting a series of lectures for battalion surgeons on the rationale for forward treatment of psychiatric casualties and the consequent need to interrupt rearward evacuation of these casualties. From this combination of changes in regulations and education of medical personnel, the IDF hopes that future psychiatric casualties will be held for forward treatment despite the pressure for rearward evacuation.

Outcome. For those soldiers diagnosed as psychiatric casualties and treated forward at the AMB, 75% were sent back to their units within 72 hours. Some failed to reach their units for administrative reasons, and a few relapsed, leaving a net 60% returned to duty. In contrast, for soldiers diagnosed as psychiatric casualties and treated in Israel proper, return to duty was only 40% (Noy, Solomon and Benbenishti 1983; Table 5). One rear treatment team was as successful as the average forward treatment team in returning soldiers to duty. This may show that the team's expectation to return casualties to duty is more important than simple proximity to the front. For both forward and rearward treatment, the IDF found the following factors predicted return: relative youth, being a combat soldier, and carrying a diagnosis of simple battle shock (Solomon and Noy 1983; Table 6).

The majority of psychiatric casualties occurred in combat soldiers early in the war. Six months after the beginning of the war, 100 of the 600 psychiatric casualties were still in ambulatory therapy. Of the 100, 25-30% were psychiatrically impaired to the degree that they were excused from any combat duties. Five had been discharged from the military.

Of the delayed psychiatric casualties, most were referred for outpatient psychotherapy. A few were referred to the rear treatment facility in northern Israel. Only 16% were returned to their units (Noy, Solomon and Ben-

benishti 1983; Table 5). These delayed psychiatric casualties were similar to those observed by the IDF in the 1973 war. The occurrence of delayed psychiatric casualties provides further evidence of the importance of comradeship and unit cohesion in maintaining soldier effectiveness not only before and during, but after battle as well.

Of the 600 soldiers evacuated as psychiatric casualties, 60 required further institutional treatment after 2-3 weeks of combined first and second echelon psychiatric care (Margalit et al. 1983; Table 7). Soldiers unresponsive to the brief initial treatment were sent to the Combat Fitness Retraining Unit (CFRU). The CFRU was located on the grounds of a sports institute in central Israel. The staff included psychiatrists, psychologists, social workers, and sports coaches who had worked with psychiatric casualties during and immediately after the 1973 war. The guiding idea of the CFRU was a combination of "walking and talking." The treatment program consisted of abreactive individual and group psychotherapy, individual and group sports, and combat-oriented military training. The mental health personnel and the sports coaches participated in both the psychotherapy and the physical activity. The 60 patients came about equally from regular and reserve units. The majority were from combat units. The average stay was 26 days. Only 5 patients (8%) received medication, in all cases tricyclic antidepressants. The CFRU was relatively successful. Of the regular service soldiers, 43% were returned to their units; of the reservists, 38% were returned to their units (Margalit et al. 1983a, Wozner et al., Margalit et al. 1983b, Goren et al. 1983, Nardi et al. 1983, Segal et al. 1983; Table 7). After completing treatment at the CFRU, none of the men required further institutional care, and some were well enough to return to combat duty in Lebanon.

The soldiers treated in the CFRU were given a variety of psychometric tests, including the Minnesota Multiphasic Personality Inventory (MMPI). Psychosocial histories were also taken. The test results and the psychosocial histories were given to six mental health officers who diagnosed the men with regard to psychiatric pathology. They were unaware that the histories and test results were from psychiatric casualties. These blind evaluators diagnosed 90% of the 60 soldiers as suffering from some form of character disorder (Segal et al. 1983). In contrast, the mental health officers at the front thought character disorders were present in only a small proportion of their battle shock cases (Noy, personal communica-

tion). This confirms the impression from other wars and armies that personality contributes little to the risk of breakdown in combat but substantially influences prognosis once breakdown has occurred. Thus, once they have become psychiatric casualties, soldiers with character pathology seem less likely to respond to brief forward treatment and therefore are overrepresented in the second and third echelons of treatment. A similarly poor prognosis was observed in soldiers with repressed personalities who suffered battle shock during the 1973 war (Noy 1978b).

Post-War Analyses

Breakdown Recurrence. The IDF studied the recurrence of battle shock in soldiers who had broken down in the 1973 war (Solomon, Oppenheimer and Noy 1983; Table 8). By June of 1982, the IDF still had 600 of these cases on record. Of these 600, 40% were combat ready by IDF criteria. By comparison, of a control group of 1973 veterans, 75% were combat-ready. Thus, by June of 1982, significantly fewer former psychiatric casualties were combat ready, implying vulnerability to life stresses or chronic disability. Of the former psychiatric casualties who were combat-ready (approximately 240), 200 fought in Lebanon. The recurrence rate for this group of psychiatric casualties was 1%. The recurrence rate in the control group of 1973 war veterans was 0.5%, and the overall occurrence rate for psychiatric casualties for Israeli reservists in Lebanon was 0.67%. Thus, there was no discernable difference in psychiatric breakdown rates in Lebanon between those soldiers who had suffered previous breakdowns during the 1973 War and those who had served in the 1973 War but had not broken down. The IDF concluded that if a soldier is fit for combat duty by normal military criteria, a previous history of battle shock does not place him at increased risk for future combat-related psychiatric breakdown.

Battlefield Factors. Throughout the history of modern warfare, psychiatric casualties have risen as a function of battle stress. Battle stress is typically measured by the number of casualties per combat day. In past wars, using this measure, the greater the battle stress, the greater the number of psychiatric casualties. The IDF studied this with more precision during the war in Lebanon by defining battle stress independent of physical casualties. The IDF chose 4 battalions for a retrospective study; these four battalions fought during the early stages of the war in

age, rank, and military occupation-matched unwounded soldiers.

Morale. Morale has been described as the secret weapon of the IDF (Gal 1983). Since its creation in 1948, the IDF has stressed the importance of morale in combat and the role of policy and practice in fostering it. The 1973 Arab-Israeli War raised the IDF's awareness of the psychological aspects of combat to an even higher level. This has resulted in the rapid development of the scientific appraisal of morale, leadership, and unit cohesion, and their relationship to combat effectiveness. Since the 1973 war, the IDF has deployed psychologists at the brigade and division levels to study these factors and to give practical advice to company, battalion, brigade, and division commanders on morale and the other psychological factors important in maintaining performance in combat. In principle, prior to combat, these psychologists measure morale on a company by company basis; and during combat, they accompany brigade and division commanders, providing advice on a variety of morale factors. In practice, as the criteria for selecting these battle psychologists are stringent, there are not enough of them to serve all combat units. Even when deployed, they do not systematically survey morale in all combat companies. Despite these limitations, the IDF has done interesting studies of morale and its relationship to other personal and unit factors as described below.

Company morale correlates significantly with personal morale. In the spring of 1981, a survey was conducted of the morale of 1200 IDF combat soldiers (Gal 1983; Table 11). The purpose of this survey was to identify the components of both personal and company morale. The components of personal morale were found to be trust in the company commander, confidence in one's own skills as a soldier, one's feelings about the legitimacy of the war, trust in one's weapons, trust in one's self, confidence in one's comrades' readiness to fight, the unit's cohesiveness, and the quality of one's relationship with one's commander. Although the correlations in Table 11 are not exceptionally high, the trends appear meaningful. The IDF has found that the component of trust in one's weapons has become an increasingly important factor in personal morale over the last 3 decades (Gal 1983). Also of interest is the impression of IDF psychologists that when belief in the legitimacy of war declines, as it did in soldiers fighting in Lebanon, overall morale can remain high if soldiers maintain trust in their commanders (Gal, personal communi-

cation).

Company and personal morale and readiness correlated with several other factors. In a study conducted on 1500 soldiers during the third week of the war in Lebanon (Spektor, personal communication), the IDF found current company morale and readiness, and current personal morale, significantly correlated with company functioning during combat, company morale during combat, trust in the commander, and self appraisal as a soldier. Negatively correlated with all of the above were dysfunctions caused by fear. Uncorrelated with the above were casualties among commanders, information before and during combat, talks with commanders, and appraisal of the enemy. Thus it would appear that companies with high unit and personal morale will show high levels of trust in their commanders, will fight well, and will be less easily suppressed by enemy fire. In contrast, casualties among commanders, information supplied by commanders, or fear of the enemy have little relation to morale, to effectiveness, or to liability to suppression.

Trust in the commander depends primarily on the competence of the commander, and only secondarily on his credibility and caring for soldiers. Using data obtained from 30 platoons (approximately 300 soldiers) during the third week of the war (Kalay 1983), the IDF has refined the concept of trust in the commander, dividing it into three components: belief in the professional competence of the commander, belief in the credibility of the commander, and the perception of how caring the commander is for his soldiers. All three components are important ingredients of trust in the commander in garrison. In combat, however, belief in the commander's professional competence becomes the primary ingredient of trust. The soldier's perception of the professional competence of his commander is complex. It includes both the perception of the commander's overall professional competence, and more specifically, the perception of the care with which the commander tailors the missions he receives from higher command to the particular strengths and weaknesses of the men under his command. Additionally, the personal example of the commander -- his demonstrated confidence in himself, his soldiers, and the unit's weapons -- were important components of commander competence and hence of overall trust. Also important in commander competence were good navigational skills, prior combat experience, and following the prescribed procedures in preparing for combat. In the war in Lebanon, the IDF found that of the three factors of trust in the commander

-- professional competence, credibility, and caring for soldiers -- perception of the commander's professional competence by the soldiers under his command correlated most highly with combat effectiveness. In general, the IDF has found morale an effective predictor of unit performance in combat.

The IDF used their morale measures to study the incidence of psychiatric casualties (Spektor, personal communication). Historically, in addition to battle stress, low morale, poor unit cohesion, and weak leadership have predicted psychiatric casualties in battle. The IDF found that company morale was negatively correlated with the incidence of psychiatric casualties (Gal, personal communication; Noy, personal communication; Spektor, personal communication). However, this study has a number of methodological difficulties. Specifically, psychiatric casualties were recorded on a battalion by battalion basis, while the morale measures (when available) were done on a company by company basis; and since, in any given battalion, there are three combat companies and one support company, morale measures, in addition to being unavailable for all the combat companies, are not available at all for the support companies. Thus, the study needs to be re-done once the psychiatric casualties are analyzed on a company by company basis. Within the limitations of the method outlined above, the preliminary results indicate that the higher the morale of a unit going into combat in Lebanon, the less likely the unit was to suffer psychiatric casualties. It can be inferred from the importance that the IDF attaches to morale in active service and reserve units that high morale correlates also with increased combat effectiveness. Further, in elite Israeli forces in Lebanon (commandos and other special units), psychiatric casualties were zero in spite of the intense battles in which they participated, a finding consistent with the experience of U.S. forces in WW II.

Despite high morale and a good deal of attention given by command to morale and the factors maintaining it, the IDF still suffered relatively high rates of psychiatric casualties during the war in Lebanon. This may be for the following reasons. Fighting in urban areas posed special problems for IDF soldiers. Battle shock cases often resulted from the surprise of receiving fire from civilians (including women and children). Also, the IDF may have evacuated to the rear soldiers who had quite normal fear reactions to combat. Finally, the war in Lebanon was so brief in its active phases that all soldiers may have in

effect been "short timers" and suffered from a form of "short timer's syndrome."

SUMMARY AND CONCLUSIONS

Psychiatric casualties were a significant source of manpower loss for the IDF in the 1973 Arab-Israeli War and in the 1982 war in Lebanon. In the 4 weeks of the 1973 Arab-Israeli War, the ratio of psychiatric casualties to wounded in action was approximately 30:100. In the 1982 war in Lebanon, from June through December, the ratio of psychiatric casualties to wounded was 23:100. The majority of psychiatric casualties were cases of battle shock (pure emotional reaction to the stress of battle), but some were diagnosed as mixed syndromes, involving, in addition to battle stress, a component of character disorder. In both wars, intense battle stress was the primary cause of battle shock. In both wars, battle shock cases emerged within hours of the beginning of hostilities, and were most prevalent where the battle was most intense. In both wars, symptoms were typically anxiety, depression, fear, and sleep disturbance. These were the symptoms that were typical of the battle shock observed in the allied armies in World War I, World II, and the Korean War.

In both the 1973 and 1982 wars, most battle shock casualties occurred in combat units. As a fraction of total unit casualties, however, battle shock cases were more common in support units and among reservists. In the 1973 war, low morale and high levels of civil stress appeared to predispose to breakdown as well. In the 1982 war, low intelligence, low motivation, and poor education also may emerge (pending further analysis) as predisposing to breakdown.

The 1973 war was the first war in which the IDF sustained significant numbers of psychiatric casualties. They had no doctrine for treatment. All battle shock casualties were evacuated to the rear; only a few returned to their units during the war; many became chronically disabled. Following the 1973 war, the IDF adopted the U.S. doctrine of forward treatment. Using forward treatment, the IDF was successful in sending 75% of soldiers back to duty within 72 hours. For administrative reasons some of these

soldiers never returned to their units, and a few soldiers relapsed. Overall, 60% of psychiatric casualties were returned to combat duty following forward treatment. In comparison to forward treatment, rearward treatment was significantly less effective, returning only 40% of soldiers to their units. This contrast in effectiveness between forward and rearward treatment is consistent with the U.S. experience in World War I, World War II, and the Korean War: if a psychiatric casualty is evacuated beyond the division he is much less likely to return. In addition to forward treatment, good prognostic factors during the war in Lebanon included the psychiatric casualties labeling themselves as healthy, taking initiative during treatment, being relatively young, being from a combat unit, and carrying a diagnosis of battle shock. Of the soldiers who became psychiatric casualties in the 1973 Arab-Israeli War, those who fought in Lebanon in 1982 were at no higher risk for developing battle shock than other IDF soldiers. Of the battle shock casualties in 1982 who received forward and/or rearward treatment and failed to recover following either form of brief treatment, 90% appeared to have an underlying character disorder. This supports the finding from the 1973 war that while no particular personality is at risk for breakdown, character disorders do affect prognosis for recovery once breakdown has occurred. Nevertheless, with further treatment focused on physical and mental rehabilitation, even soldiers with underlying character disorders showed improvement so that 40% returned to their units.

After the 1973 war, the IDF deployed battle psychologists to measure morale and to advise brigade and division commanders on the factors enhancing or diminishing morale. In the 1982 war in Lebanon, as in the 1973 war, the IDF found that high unit morale correlated with increased combat effectiveness and decreased psychiatric casualty rates. In the 1982 war, trust in the commander was a major component of morale. In combat, commander competence was the major component of the trust in the commander and correlated most highly with combat effectiveness. In general, units with high morale were more combat effective and were less likely to be suppressed by enemy fire.

Table 1

PHYSICAL CASUALTIES IN ISRAELI FORCES IN LEBANON
JUNE-DECEMBER 1982

Adapted from Dolev, personal communication

Wounded in action (WIA) 2600

80% evacuated beyond level of
medical battalion

Killed in action (KIA) 465

50% severe head injury
20% severe crush injury to body
5% for other reasons beyond help

Thus, approximately 75% were beyond help
even with the most vigorous medical
and surgical intervention

TABLE 2

INCIDENCE OF PSYCHIATRIC CASUALTIES
(BATTLE SHOCK AND MIXED SYNDROMES)
IN ISRAELI FORCES IN LEBANON
JUNE-DECEMBER 1982

Adapted from Shipler 1983;
and Noy, personal communication

Psychiatric casualties including wounded with psychiatric symptoms	600
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Wounded in action (WIA) with no psychiatric symptoms	2600
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Killed in action (KIA)	465
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For the 1982 war in Lebanon, the ratio of psychiatric casualties (including wounded with psychiatric symptoms) to WIA	23:100
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For the 1973 Arab-Israeli War, the ratio of psychiatric casualties (not including wounded with psychiatric symptoms) to WIA	30:100
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TABLE 3

SYMPTOMS REPORTED BY PSYCHIATRIC CASUALTIES
IN ISRAELI FORCES IN LEBANON
JUNE-SEPTEMBER 1982

Adapted from Bar-On, Solomon, Noy and Nardi 1983

1.	Anxiety	56%
2.	Depressive affect	38%
3.5	Sleep disturbances	34%
3.5	Fear - diffuse, focused	34%
5.	Social estrangement, detachment	24%
6.	Conversion reactions	22%
7.	Crying	21%
8.5	Decreased appetite	19%
8.5	Headache	19%
11.	Exhaustion, fatigue	17%
11.	Psychomotor disturbances	17%
11.	Disturbing dreams, memories	17%
13.5	Tremors	13%
13.5	Confusion, concentration disturbances	13%
15.	Speech, communication impairment	12%
17.5	Dissociative states	11%
17.5	Irritability	11%
17.5	Explosive aggressive behavior	11%
17.5	Memory impairment	11%
20.	Noise sensitivity, startle	10%

TABLE 4

PSYCHIATRIC SYMPTOM CLUSTERS IN DIFFERENT WARS
BOTH U.S. AND ISRAELI

Adapted from Bar-On, Solomon, Noy and Nardi 1983

		U.S.		Israel	
	<u>WW I</u>	<u>WW II</u>	<u>V'NAM</u>	<u>1973</u>	<u>1982</u>
Anxiety		X		X	X
Depressive affect	X			X	X
Fear, diffuse/focused	X			X	X
Constricted affect			X		
Disturbing dreams		X		X	
Exhaustion fatigue		X			
Decreased appetite		X			
Intestinal discomfort		X			
Headaches		X			
Startle reaction	X				
Sleep disturbance		X		X	X
Tremors	X				
Psychomotor changes	X			X	
Conversion reaction	X	X		X	X
Confusion	X				
Social detachment			X		X
Dissociation	X			X	
Antisocial			X		
Aggressive			X		
Substance abuse			X		

TABLE 5

RESULTS OF TREATMENT OF PSYCHIATRIC CASUALTIES
IN ISRAELI FORCES IN LEBANON
JUNE-SEPTEMBER 1982

Adapted from Noy, Solomon and Benbenishti 1983

(First number in each pair are total psychiatric casualties; numbers in () are pure battle shock casualties)

	<u>Returned to unit</u>	<u>Not Returned to unit</u>
<u>Forward treatment</u> (2-5 Km from the front; or on the border)		
Break occurred at the front	60% (66%)	40% (34%)
<u>Rearward treatment</u> (central and northern Israel)		
Break occurred at the front	40% (46%)	60% (54%)
Break occurred at home following demobilization or while on pass	16% (11%)	84% (89%)

By Chi Square on actual numbers, groups differ ($p < .0001$).

TABLE 6

FACTORS CORRELATED WITH RETURN TO DUTY
FOLLOWING PSYCHIATRIC BREAKDOWN
IN ISRAELI FORCES IN LEBANON
JUNE-SEPTEMBER 1982

Adapted from Noy and Solomon 1983

Factors positively correlated with return to duty:

Forward treatment

Younger

Being a combat soldier

Being diagnosed as suffering from battle shock

Factors showing no correlation with return to duty:

Pre-war medical history

Country of origin

Performance predictor score

Intelligence

Education

Motivation score (on induction)

Type of service (regular or reserve)

TABLE 7

COMBAT FITNESS RETRAINING UNIT (CFRU)
THIRD ECHELON OF TREATMENT
OF BATTLE SHOCK CASUALTIES IN
ISRAELI FORCES IN LEBANON
JUNE-SEPTEMBER 1982

Adapted from Margalit et al. 1983

60 patients (10% of total) were treated at the CFRU

Equally divided between reservists and regular soldiers

Most were from combat units

Stayed an average of 26 days

5 patients (8% of total) received tricyclic antidepressants

Regular service soldiers:

43% returned to original unit

57% reassigned to non-combat
unit

Reservists:

38% returned to original unit

62% reassigned to non-combat
unit

A number of soldiers went back to combat in Lebanon

TABLE 8

RECURRENCE OF BATTLE SHOCK IN
ISRAELI FORCES IN LEBANON
JUNE-SEPTEMBER 1982

After initial psychiatric breakdown in the 1973
Arab-Israeli War

Adapted from Solomon, Oppenheimer and Noy 1983

By June of 1982, battle shock cases from the 1973 Arab-Israeli War still on record	600
Combat ready by profile	40%
Recovered battle shock cases from 1973 serving in Lebanon	200
Recurrence of battle shock in Lebanon in battle shock cases from 1973	1%
By June 1982, of the control group of 1973 Arab-Israeli War veterans:	
Combat ready by profile	75%
Occurrence of battle shock in the control group of 1973 Arab-Israeli War veterans	0.5%
Overall risk of occurrence of battle shock for all Israeli reserve forces in Lebanon	0.67%

TABLE 9

BATTLE STRESS AS A PREDICTOR OF BATTLE SHOCK
ISRAELI FORCES IN LEBANON
JUNE-SEPTEMBER 1982

Adapted from Noy, Nardi and Solomon 1983

Based on the battles of 4 battalions
Battles were ranked on intensity of battle stress by the following factors:

Preparation (enemy location, mission, false alarms, training)
Battle (artillery, air attack, ambush, hostage, mine field)
Support (tactical, logistics, materiel)
Enemy resistance (strong, adequate, weak)
Trust by commander in the higher command (unjustified pressure, some pressure, adequate support)

Overall ranking of battle stress for each battalion (ranked 1-4 most to least difficult; rank given in 1st column) compared to psychiatric and physical casualties and the ratio of the two (expressed as number of psychiatric casualties per 100 physical casualties (KIA + WIA)). The overall ratio of psychiatric casualties to physical casualties (KIA + WIA) for the war in Lebanon was approximately 20:100.

	Physical Casualties (KIA + WIA)	Psychiatric Casualties	Ratio
1	36	31	86:100
2	23	9	39:100
3	10	1	10:100
4	12	0	00:100

TABLE 10

RATIO OF BATTLE SHOCK TO WOUNDED BY AGE
IN ISRAELI FORCES IN LEBANON
JUNE-SEPTEMBER 1982

Adapted from Solomon and Noy 1983

<u>AGE</u>	<u>Battle shock:wounded</u>
18-21	10:100
22-25	22:100
26-30	38:100
31-35	29:100
36-55	28:100

By Chi Square on actual numbers, groups differ ($p < .01$).

Other factors predicting breakdown (battle stress held constant; wounded soldiers as the control group):

Low education

Low motivation score (personality characteristics and attitude towards military service)

Low performance predictor score (intelligence, motivation, knowledge of Hebrew)

Reservist

Support unit

Low rank

TABLE 11
CORRELATIONS BETWEEN MORALE AND OTHER VARIABLES
IN ISRAELI FORCES
MAY 81

Adapted from Gal (1983)

Personal morale	.55	Perceived company's morale
	.32	Relations with commanders
	.36	Unit's cohesiveness
	.24	Trust in company commander
	.27	Comrades readiness to fight
	.28	Legitimacy of war
	.34	Trust in one's self
	.24	Trust in weapons
	.23	Personal competence
Perceived company morale	.55	Personal morale
	.47	Relations with commanders
	.41	Unit's cohesiveness
	.27	Trust in company commander
	.20	Comrades' readiness to fight
	.09	Legitimacy of war
	.21	Trust in one's self

N = 1200; all correlations are significant ($p < .05$)

REFERENCES

1. BAR-ON, R., SOLOMON, Z., NOY, S. and NARDI, C. (1983) War related stress: an overview of the clinical picture in the 1982 conflict in Lebanon. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
2. ENOCH, D., BAR-ON, R., BARG, Y., DURST, N., HARAN, G., HOVEL, S., ISRAEL, A., REITER, M., STERN, M. AND TOUBIANA, Y. (1983) An indigenous military community as a psychotherapeutic agent: specific application of forward treatment in combat. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
3. GAL, R. (1978) Characteristics of heroism. Paper presented at the Second International Conference on Psychological Stress and Adjustment in Time of War and Peace, Jerusalem, Israel, 19-23 June 1978.
4. GAL, R. (1983) Unit morale - the secret weapon of the Israel Defense Forces. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
5. GOREN, Y., TRIEST, J., SEGAL, R., MARGALIT, C., WOZNER, Y. AND NARDI, C. (1983) Contribution of group therapy in short term third echelon treatment program for combat reactions with poor prognosis. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
6. KALAY, E. (1983) The commander in stress situations in IDF combat units during the "Peace for Galilee" campaign. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
7. MARGALIT, C., SEGAL, R., NARDI, C., WOZNER, Y. AND GOREN, Y. (1983a) Combat fitness retraining unit (CFRU) for treatment and rehabilitation of combat reactions with poor prognosis in the June 1982 conflict. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War

and Peace, Tel Aviv, Israel, 2-6 January 1983.

8. MARGALIT, C., SEGAL, R., GOREN, Y., NARDI, C., AND WOZNER, Y. (1983b) Individual psychotherapy in a rear echelon unit for the treatment of combat reactions with poor prognosis in the June 1982 conflict in Lebanon. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
9. NARDI, C., WOZNER, Y., MARGALIT, C., SEGAL, R., AND GOREN, Y. (1983) Behavioral approach in a combat fitness retraining unit (CFRU) in the June 1982 conflict in Lebanon. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
10. NOY, S. (1978a) An integrative model of treatment for combat reaction. Paper presented at the Second International Conference on Psychological Stress and Adjustment in Time of War and Peace, Jerusalem, Israel, 19-23 June 1978.
11. NOY, S. (1978b) Stress and personality as factors in the causality and prognosis of combat reaction. Paper presented at the Second International Conference on Psychological Stress and Adjustment in Time of War and Peace, Jerusalem, Israel, 19-23 June 1978.
12. NOY, S., SOLOMON, Z. and BENBENISHTI, R. (1983) The forward treatment of combat reactions: a test case in the 1982 conflict in Lebanon. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
13. NOY, S., NARDI, C. AND SOLOMON, Z. (1983) Battle characteristics and the prevalence of combat psychiatric casualties. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
14. SEGAL, R., MARGALIT, C., REISH, M., ZILBERMAN, S., AND FRIEDMAN, Y. (1983) The contribution of combat physical fitness in a rear unit (CFRU) for the treatment of combat reactions with poor prognosis. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War

and Peace, Tel Aviv, Israel, 2-6 January 1983.

15. SHIPLER, D. (1983) The other Israeli casualties: the mentally scarred. New York Times, 8 January 1983, p2.
16. SOLOMON, Z. and NOY, S. (1983) Who is at high risk for combat reaction? Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
17. SOLOMON, Z., OPPENHEIMER, B. and NOY, S. (1983) Subsequent military adjustment of soldiers who suffered from combat reaction in the Yom Kippur war. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
18. STEINER, M. and NEUMANN, M. (1978) Traumatic neurosis and social support in the Yom Kippur war returnees. Paper presented at the Second International Conference on Psychological Stress and Adjustment in Time of War and Peace, Jerusalem, Israel, 19-23 June 1978.
19. WOZNER, Y., GOREN, Y., MARGALIT, C., NARDI, C., SEGAL, R. AND TRIEST, Y. (1983) Behavioral dynamics of a short term residential setting for the rehabilitation of combat reactions with poor prognosis at the CFRU. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.

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PSYCHIATRIC CASUALTIES (BATTLE SHOCK) IN ISRAELI DEFENSE FORCES IN THE WAR IN LEBANON JUNE-SEPTEMBER 1982

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INCIDENCE OF PSYCHIATRIC CASUALTIES

The 1982 war in Lebanon differed qualitatively and quantitatively from the 1973 Arab-Israeli War. The 1982 conflict was fought at the time and in the manner chosen by the Israelis. It engaged only a portion of the IDF, and did not stress its logistic support. Intense military operations were conducted from 6 June 1982 until the initial cease fire on 11 June 1982, and during a further period from 21-26 June 1982, when the IDF cut the Beirut-Damascus Road. The majority of IDF casualties, including psychiatric casualties, were sustained during these periods of intense fighting. Overall, for the IDF in Lebanon during the period of June-December 1982, the ratio of psychiatric casualties to wounded has been cited as 23:100 (Shipler 1983). During the 1973 Arab-Israeli War, the ratio was higher, probably over 30:100 (Noy, personal communication). It appears that for an equivalent degree of combat stress, indicated by the relative number of wounded, psychiatric casualties in the IDF were lower during the 1982 war in Lebanon than during the 1973 war.

SYMPTOMS AND DIAGNOSES

Most of the psychiatric casualties were cases of battle shock, emerging within hours to days of the beginning of the war, sometimes even before significant fatigue had developed. The clinical symptoms most commonly reported were anxiety, depression, sleep disturbances, and fear. These are similar to the symptoms reported by psychiatric casualties in allied armies in World War I, World War II, and the Korean War, and by the Israelis during the 1973 Arab-Israeli War. In addition, a delayed form of psychiatric breakdown occurred in men who were home on leave or who had been demobilized.

Their symptoms were crying, loss of appetite, and sleeplessness, with recurrent dreams and thoughts of the war. These are similar to the symptoms reported by delayed psychiatric casualties among IDF forces in the 1973 Arab-Israeli War.

BATTLE STRESS AS AN ANTECEDENT OF PSYCHIATRIC BREAKDOWN

Throughout the history of modern warfare, psychiatric casualties have risen as a function of battle stress. Battle stress is typically measured by the number of casualties per combat day. Qualitative aspects of the battle, above and beyond numbers of physical casualties, may increase or decrease the number of psychiatric casualties. Tactical errors by commanders, being ambushed, or being hit by friendly fire increased the incidence of psychiatric casualties beyond what would be expected on the basis of physical casualties alone. Confidence in leadership and cohesion in units tend to reduce the proportion of psychiatric to physical casualties. In contrast, the collapse of trust in the commander or the deterioration of unit cohesion may elevate the proportion of psychiatric casualties. The IDF studied this in detail during the war in Lebanon by defining battle stress both quantitatively, in terms of physical casualties, and qualitatively, in terms of battle characteristics. The IDF chose 4 battalions for this retrospective study; these four battalions fought during the early stages of the war in Lebanon (Noy, Nardi and Solomon 1983). The after action reports of the 4 battalions were given to 6 military mental health experts for review. Each after action report included the commander's subjective assessment of the battles fought on the basis of preparation, type of battle, adequacy of support, enemy resistance, and commander's relation to higher command. Using these reports, the experts were asked to rank order the battalions according to expected proportion of psychiatric to physical casualties. There was high inter-rater reliability among the experts. The experts ranking predicted well the ranking of the battalions by ratio of psychiatric to physical casualties. The greater the number of mishaps that weakening cohesion or confidence in leadership the higher the proportion of psychiatric casualties. In spite of the small sample of units involved, the study reinforces the idea that casualty rates and battlefield stress are closely related and that unit cohesion and leadership may further increase or decrease the number of psychiatric casualties.

TREATMENT AND OUTCOME

Following the 1973 Arab-Israeli War, the IDF adopted the U.S. principles of forward treatment for psychiatric casualties. Prior to the war in Lebanon, the IDF Mental Health Department planned to treat psychiatric casualties forward at the level of the Advanced Medical Battalion (AMB). Each AMB supports a division and is from 2 to 20 kilometers to the rear of the fighting. The IDF conducted education and training, including field exercises, for the forward mental health teams. Each five-member team consisted of one psychiatrist, one psychologist, and three other mental health officers, either psychologists or social workers. According to IDF

plans, psychiatric casualties were to be seen first at the battalion aid station, and, if they required more than an hour or two of rest, then be evacuated by ground ambulance to the AMB. There the forward mental health treatment team would hold casualties for 48 to 72 hours before either returning them to their units or, if they were unimproved, evacuating them further rearward. The treatment was to consist of physical replenishment (water, food, and sleep) and supportive individual and group psychotherapy. As a matter of principle, the psychiatric casualties were made responsible for their own maintenance, and required to keep their weapons.

Many cases of battle shock were sufficiently mild to be treated with an hour or two of rest at the battalion aid station and were then able to return to their units. No records were kept of these cases, and so they are not included in the statistics in this paper. The remaining cases were evacuated beyond the battalion aid station, entered into the statistical records, and treated either forward at the AMB or rearward in Israel, as will be described below.

Despite the plan for forward treatment, not all psychiatric casualties were treated close to the front; rather some were treated in central and northern Israel. This was partly due to a lack of awareness of the importance of forward treatment on the part of some physicians at the battalion aid stations, who simply evacuated psychiatric casualties rearward, and partly due to the tactical situation. With respect to the latter, the terrain in Lebanon is hilly and narrow roads run through steep-walled valleys. Military traffic moving forward toward the front made rearward ground evacuation difficult. Evacuation from the battalion aid station for both the wounded and the psychiatric casualties was therefore frequently by helicopter. Once on board a helicopter, casualties were flown directly back to civilian hospitals in Israel, bypassing the AMB. Psychiatric casualties were evacuated with the wounded, by ground or air; if by ground then to the AMB, if by air then to Israel. Approximately half the psychiatric casualties reached the AMB, while half reached civilian hospitals in Israel. This assignment to route of evacuation was random. The IDF quickly realized that psychiatric casualties were arriving at civilian hospitals and put into operation a rearward treatment facility in Northern Israel; treatment teams were organized to provide brief treatment similar to that used forward. Thus, the treatment of psychiatric casualties offered a comparison of the effectiveness of forward and rearward treatment.

The doctrine of forward treatment proved effective. During the war in Lebanon, one team returned 95% of battle shock cases to duty with their units (Enoch et al 1983). Initially, they conducted an interview to establish where the soldier had been, what he had done, and what had happened to him. This interview was oriented objectively rather than toward thoughts and feelings. The team observed two things, which confirmed the observations made in previous wars. First, thoughts and feelings inevitably followed the description of objective events; and second, just describing what had happened clarified events and reduced the emotional turmoil. The team allotted the next 6-8 hours of treatment to physical replenishment

(water, food, and rest). Then the soldier was given useful tasks to do and invited to join in supportive individual and group psychotherapy. Next, the team arranged for his comrades and for his unit commander to visit. Then the soldier himself was taken to visit the unit. In these ways, mutual confidence between the soldier and his unit was restored. When the soldier had recovered enough to return to the unit, the team would arrange for his comrades to pick him up. This team took advantage of its proximity to the front and to the soldier's unit to maximize the expectation that he would return and to reinforce the soldier's links to his comrades and commander. The team observed that units were happy to receive the soldier, confirming the finding from other sources that under stress group members prefer someone they know to someone they do not know, regardless of presumed level of competence.

Overall for all treatment teams, of those soldiers diagnosed as psychiatric casualties and treated forward at the AMB, 75% were sent back to their units within 72 hours. Some failed to reach their units for administrative reasons, and a few relapsed, leaving a net 60% returned to duty with their units. In contrast, for soldiers diagnosed as psychiatric casualties and treated in Israel proper, return to duty was only 40% (Noy, Solomon and Benbenishty 1983). Of the delayed psychiatric casualties, only 16% were returned to their units (Noy, Solomon and Benbenishty 1983).

CHARACTER AND PROGNOSIS

Ten percent of the psychiatric casualties required further institutional treatment after 2-3 weeks of combined first and second echelon psychiatric care (Margalit et al 1983). These soldiers, who were unresponsive to brief initial treatment, were sent to the Combat Fitness Retraining Unit (CFRU). The CFRU was located on the grounds of a sports institute in central Israel. The staff included psychiatrists, psychologists, social workers, and sports coaches who had worked with psychiatric casualties during and immediately after the 1973 war. The guiding idea of the CFRU was a combination of 'walking and talking.' The treatment program consisted of abreactive individual and group psychotherapy, individual and group sports, and combat oriented military training. The CFRU was relatively successful. Of the regular service soldiers, 43% were returned to their units; of the reservists, 38% were returned to their units (Margalit et al 1983). After completing treatment at the CFRU, none of the men required further institutional care, and some were well enough to return to combat duty in Lebanon.

The soldiers treated in the CFRU were given a variety of psychometric test, including the Minnesota Multiphasic Personality Inventory (MMPI). Psychosocial histories were also taken. The test results and the psychosocial histories were given to six mental health officers who diagnosed the men with regard to psychiatric pathology. The mental health officers were unaware that the men were psychiatric casualties. These blind evaluators diagnosed 90% of the 60 soldiers as suffering from some form of character

disorder. In contrast, while not having a formal control group, mental health officers at the front thought character disorders were present in only a small proportion of their battle shock cases. This confirms the impression from other wars and other armies that personality contributes little to the risk of breakdown in combat but substantially influences prognosis once breakdown has occurred. Thus, once soldiers have become psychiatric casualties, those with character pathology seem less likely to respond to brief forward treatment and, therefore, are overrepresented in the second and third echelons of treatment. A similarly poor prognosis was observed in soldiers with repressed personalities who suffered battle shock during the 1973 Arab-Israeli War (Noy 1978).

RECURRENCE

The IDF studied the recurrence of battle shock in soldiers fighting in the war in Lebanon who had previously broken down in the 1973 Arab-Israeli War (Solomon, Oppenheimer and Noy 1983). By June of 1982, the IDF still had 600 cases on record of psychiatric breakdown from the 1973 war. Of these 600, 40% were combat ready by established military fitness criteria. By comparison of a control group of 1973 veterans, 75% were combat-ready by these criteria. Thus, by June of 1982, significantly fewer former psychiatric casualties were combat ready, implying a degree of chronic disability. Of the former psychiatric casualties who were combat ready (approximately 240), 200 fought in Lebanon. The recurrence rate for this group was 1%. The recurrence rate in the control group of 1973 war veterans was 0.5%, and the overall occurrence rate for psychiatric casualties for IDF reservists in Lebanon was 0.67%. Thus, there was no discernable difference in psychiatric breakdown rates in Lebanon between those soldiers who had suffered previous breakdowns during the 1973 war and those who had served in the 1973 war but not broken down. The IDF concluded that if a soldier is otherwise fit for combat duty, a previous history of battle shock does not place him at increased risk for future combat-related psychiatric breakdown.

SUMMARY AND CONCLUSIONS

Psychiatric casualties (battle shock) were a significant source of manpower loss for the IDF during the 1982 war in Lebanon. In Lebanon, from June through September 1982, the ratio of psychiatric casualties to wounded was 23:100. The majority of these were cases of battle shock (pure emotional reaction to the stress of battle). Intense battle stress was the primary cause of battle shock. Symptoms were typically anxiety, depression, fear, and sleep disturbance. During the war in Lebanon, the IDF, using forward treatment, was successful in sending 60% of soldiers back to duty within 72 hours. In comparison to forward treatment, rearward treatment was less effective, returning only 40% of soldiers to their units. Of the soldiers who had become psychiatric casualties in the 1973 Arab-Israeli War, those who fought in Lebanon were at no higher risk for developing battle

shock than other IDF soldiers. Of the battle shock casualties in Lebanon who failed to recover with initial treatment, 90% appeared to have an underlying character disorder. Nevertheless, with further treatment focused on physical and mental rehabilitation, even soldiers with underlying character disorders showed improvement. In summary, the IDF experience confirms and refines the experiences of other armies in previous wars with regard to psychiatric casualties in combat.

REFERENCES

1. Enoch, D., Bar-On, R., Barg, Y., Durst, N., Haran, G., Hovel, S., Israel, A., Reiter, M., Stern, M. and Toubiana, Y. (1983) An indigenous military community as a psychotherapeutic agent: specific application of forward treatment in combat. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
2. Margalit, C., Segal, R., Nardi, C., Wozner, Y. and Goren, Y. (1983) Combat Fitness Retraining Unit (CFRU) for short treatment and rehabilitation of combat reactions with poor prognosis in the June 1982 conflict. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
3. Noy, S. (1978) Stress and personality as factors in the causality and prognosis of combat reaction. Paper presented at the Second International Conference on Psychological Stress and Adjustment in Time of War and Peace, Jerusalem, Israel, 19-23 June 1978.
4. Noy, S., Nardi, C. and Solomon, Z. (1983) Battle characteristics and the prevalence of combat psychiatric casualties. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
5. Noy, S., Solomon, Z. and Benbenisht, R. (1983) The forward treatment of combat reactions: a test case in the 1982 conflict in Lebanon. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.
6. Shipler, D. (1983) The other Israeli casualties: the mentally scarred. New York Times, 8 January 1983, p2.
7. Solomon, Z., Oppenheimer, B. and Noy, S. (1983) Subsequent military adjustment of soldiers who suffered from combat reaction in the Yom Kippur war. Paper presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, 2-6 January 1983.

COMBAT STRESS REACTIONS AND READINESS

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Combat stress reaction will be a major problem to the commander in any future war. Medical data from Korea and the World Wars indicate that between one out of two and one out of eight (average one out of four) casualties resulted from battle stress. Future war is likely to be waged at unprecedented levels of intensity and mobility in a sustained (round-the-clock) mode. A high stress casualty rate can be expected within the first 24 hours (Noy, 1978). The absolute proportions of the total force likely to be temporarily incapacitated due to stress reactions, the proportions of casualties likely to be stress-related, and the rapidity with which they will occur will be unacceptable to the commander.

We do not believe that combat stress reactions (CSR) should be viewed strictly as a medical problem. Medical resources will not be able to adequately cope with the probable numbers of CSR in future war. Rather, concentrated efforts by all individuals at all levels will be required. Stress management, comprising steps taken to recognize signs of stress and deal with them before the individual becomes dysfunctional in combat are battle-proofing. Battleproofing can not only help maintain combat effectiveness, but can contribute to increased levels of garrison functioning. This requires knowledge of how soldiers act and respond to the stress of combat and how the negative impact of such stress can be reduced. Knowledge of "normal" responses will also help reassure the soldier that he really is "all right." Stress casualties are a rapidly recoverable source of manpower (Ingraham and Manning, 1980). Leaders must know the correct treatment doctrine to ensure that it is followed, since improper treatment can lead to slowed recovery or even chronic disability (Menninger, 1948; Belenky, 1978). Leaders must also be aware of how their soldiers will react to those

who are or who have been combat ineffective due to a temporary stress reaction. Attitudes or behaviors which detract from their reintegration and functioning as soldiers must be prevented.

This research assesses soldiers' knowledge about combat stress reaction (CSR). It includes a study of beliefs concerning recognition and treatment, and assessment of attitudes towards combat stress reactions. We conducted this study to document the general level of competence in this area and provide a rationale for allocation of resources to it.

METHOD

Based on three successive pilot studies, we developed a questionnaire which included a short series of questions about CSR, including trust of returned stress casualties. Each respondent was asked to describe "how do you think a stress casualty would act during combat" and "how should the stress casualty be treated." At the end of the questionnaire were two lists on which the respondent was asked to circle those alternatives he believed to apply to the CSR. The first list included 16 words to describe how a soldier with CSR would usually act. This comprised eight correct (e.g., 'sweaty', 'scared') and four incorrect (e.g., 'wild', 'pretty much like normal') descriptors plus four terms of layman vernacular (e.g., 'crazy', 'freaked-out'). The second list comprised 13 words to describe how a soldier with CSR should normally be treated. It included seven correct (e.g., give him rest, talk gently to him) and six incorrect (e.g., MEDEVAC him, restrain him) treatments.

We gave the questionnaire to two medical and six line platoons which were randomly selected from one combat brigade in Europe. To insure their adequate representation, we randomly selected 35 senior NCO's from one battalion and

included all 35 officers from two other battalions. From the total of 268 respondents we eliminated seven due to incomplete questionnaires; responses of the remaining 261 individuals are used in this paper.

RESULTS

The age, education and rank distribution of this sample is similar to that of the Army in Europe. Fifteen percent of subjects reported that they had had a class concerning combat stress reaction, but only seven percent had had a class within the past two years. Twenty percent of all subjects indicated that they had seen a CSR simulation, but only 12 percent had seen a simulation in the past two years.

Each respondent was asked to circle "the chances that you could become a combat stress casualty." The average probability circled was 35 percent. The average "percent of other men in your platoon who could become a stress casualty" was 45 percent. Responses to both questions ranged from 0.0 to 100 percent.

Each respondent was asked to describe (recall) how he thought a CSR casualty would act. These were evaluated and scored as "correct" or "incorrect." The average number of correct descriptors given was 1.0 and the average number of "incorrect" descriptors erroneously given was 0.8. From the list (containing correct and incorrect descriptors), the average number of correct descriptors respondents circled (recognized) was 4.5 and the average number of incorrect descriptors erroneously circled was 1.7.

Each respondent was also asked to describe (recall) correct treatment procedures for a combat stress reaction. The average number of correct treatments given was 0.63, and the average number of "incorrect" treatments

erroneously given was 0.7. From the list (containing correct and incorrect treatments) the average number of correct treatments circled (recognized) was 2.6 and the average number of incorrect treatments erroneously circled was 2.0.

Responses to the following four (incorrect) treatments are presented separately. They are particularly noteworthy, since their use probably would lead to a longer period of dysfunction. MEDEVAC was selected by 53 percent; hospitalize him by 62 percent; restrain the casualty, by 18 percent; and force him to "shape up" through splashing water on him or slapping him, by 20 percent.

Respondents were asked how they would feel about a CSR who returned to their unit after treatment. Forty percent stated that they would not trust the returned CSR and an additional 26 percent stated that they "would have doubts" about him. Overall, the longer the CSR was away with treatment (2, 3, 4, or 7 days) the greater the number of respondents who reported that they would trust him to do his job in combat (18, 20, 24, and 41 percent) when he returned.

There were no notable response differences among the enlisted ranks. We grouped our respondents into enlisted medics, enlisted non-medics, and officers. There were some differences among these groups; however they are generally small and of little practical significance. Less than 15 percent of enlisted and officers reported having seen a CSR simulation, and, although 45 percent of medics had, they did not typically provide greater numbers of accurate responses. For example, medics did better than non-medics but not consistently better than officers on ability to recall and recognize correct descriptors and treatments. Table 1 shows the typical small size of the differences.

Selection rates by the three groups of the noteworthy treatment alternatives are presented in Figure One. An additional choice, "shoot him" was selected by 2, 8, and 5 percent of enlisted, medic, and officers, respectively. The percents of respondents who would trust the returned CSR casualty is shown in Figure Two. Generally, higher rank and longer treatment is associated with greater trust. There were no differences among the three groups in their assessment of their own risk, or risk of others, for becoming a stress casualty in combat.

DISCUSSION

Only a small proportion of the total sample recalled having had classes or seeing simulations of combat stress reaction. Few soldiers have an accurate idea of how to recognize or treat it. The small numbers of correct descriptors and correct treatment procedures recalled or recognized indicate an unacceptably low overall level of knowledge. Although there were some differences among the three groups, generally favoring the officers and medics, the absolute numbers of correct responses are uniformly small for each group. It is clear that there has been little effective dissemination of information to those who could most benefit: (1) the soldier who will usually be the first man available to recognize stress reaction and provide buddy aid; (2) the medic, who provides first-line combat medical support, and (3) leaders who must conserve manpower.

Paraprofessionals (including combat medics [91B] clinical specialists [91C] and behavioral science specialists [91G]) who are the primary medical resources to teach other SM about combat stress reaction also receive little training emphasis in this area. The 91B and 91C basic course provides

students only about four hours of instruction on psychological aspects of the battlefield. At this writing the SM most highly trained in behavioral science (91G) receives less than six hours of instruction (an increase to about 15 hours is planned). It is unlikely that this could adequately prepare these field medical personnel for the comprehensive training and treatment roles for which they are responsible. The small proportions of soldiers who recall having any exposure to information about CSR portends severe medical and command problems in the area of stress management on the battlefield.

The potential impact of CSR on future operations mandates a serious effort to increase the technical knowledge of all personnel. The large proportion which selected incorrect treatment procedures, the small number of correct procedures most could list, and the paucity of correct descriptors listed serves to document this requirement. Future war will not provide the luxury of time to train our forces in the recognition, treatment and prevention of stress casualties. There will be no time for soldiers to learn (through their own observations and experience) the "normal" responses to combat stress. They must know what to expect, so that they do not over-react to such normal combat reactions as upset stomach, uncontrolled urination, and a pounding heart. At the same time, this knowledge will help them to recognize when their buddies are beginning to suffer from stress.

Commanders will not be able to sustain combat without relying on returned CSR casualties. Their actions must be integrated with good medical practice to ensure rapid return of such casualties. They must also ensure that all soldiers are able to provide the maximum assistance in prevention and treatment of the CSR. Leaders must be made aware of the consequences of a

high rate of CSR in a war with limited replacements (Ingraham and Manning, 1980). They must understand the implications of their own assessment --- that 45 percent of the men in their platoon could become a stress casualty. This will not take place in peacetime without explicit commitment on the part of our leaders; this commitment is an important aspect of readiness.

It is interesting to note that the medics, about half of whom had seen a CSR simulation in the past year, selected comparatively large numbers of the vernacular descriptors (similar to the non-medics). An example should suffice to demonstrate the quality of training frequently provided by such simulations. In the most recent REFORGER, three soldiers simulating CSR were being evacuated by ground ambulance under the supervision of two medics. The casualties attacked the medics, tied them up, ran screaming from the ambulance, and disappeared into the woods. This kind of simulation probably contributes to the vernacular description of the CSR as "freaked-out," "haywire," "crazy," etc. It certainly does little to foster a realistic view or a basis for trust. Sentiments of mistrust could easily provide the basis to reassign the casualty to a different job and work group, procedures which are inconsistent with proper treatment. Proper treatment includes reinforcement of the expectation that the soldier will quickly recover completely and return to full duty.

A small number of respondents, including some medics, selected "shoot him" as a treatment for CSR. We have no evidence linking this extreme view to the content of inaccurate simulations. Nor do we believe that this would be a likely response of any soldier. It is a matter of concern if it represents an attitude of hopelessness, removal from the scene and fear on the part of our soldiers. Medics should be especially aware that CSR can be successfully and

rapidly treated and that CSR casualties are not routinely evacuated out of the brigade area.

Most respondents reported that they would not trust a returned CSR casualty. It seems likely that this could contribute to inappropriate treatment (eg, restraining him, immediately evacuating or hospitalizing him, or reassigning him to different jobs upon his return). Based on past experience, with proper treatment we can expect to return about 80 percent to full duty within three days (Rioch, 1954; Mullins and Glass, 1973). Respondents did not seem prepared to trust CSR casualties returned this quickly to duty. All soldiers must realize that the alternative to accepting back a seasoned, combat ready soldier might be to receive "no one." Training could profitably focus on changing the apparent perception that "longer treatment is better." An alternative, keeping the CSR out of combat longer (about seven days) would likely be too costly in terms of lost manpower.

Few leaders are likely to be in a position where they would be required to treat individual CSR. But most will have to lead units with CSR casualties. Effort should therefore focus on how they can increase the probability that a CSR casualty will be successfully recognized, correctly treated and reintegrated in their unit. An example of this is to help ensure that CSR casualties are generally not evacuated, especially by MEDEVAC, the "treatment" selected by most respondents. Negative attitudes which interfere with reintegration must be reduced to the extent possible. One approach is to support role-playing and desensitization programs, including use of CSR simulations in all field exercises. Another approach is to include CSR into command post exercises (CPX) to highlight their potential impact on the mission. When used, the Officer Professional Development Program has been well received as a medium to support such efforts.

The combat soldier should be included in any training program emphasizing recognition and treatment. He is likely to be the first person in contact with an individual in the initial stages of a combat stress reaction. To augment limited medical resources on the battlefield, SM should be taught minimal skills in recognition and how to apply the simple doctrinal treatment principles. Such training in garrison could assist preventive medicine efforts by providing early identification of stress-related disorders, and in many cases, provide adequate ameliorative support. Stress management can profitably be viewed as a unit and buddy function. The psychological literature (Cassel, 1976; Cobb, 1976; Dean and Lin, 1977) clearly shows the importance of having someone with whom to talk to reduce the negative impact of transient stress problems. Only if personnel at company level fail to mitigate or control dysfunctional stress should higher level assistance be necessary. To the extent that this obviates the "need" for a clinic visit it would provide the most cost effective use of garrison soldier and medical resources. To the extent that it compliments medical efforts on the battlefield, it will also help conserve manpower in combat. As the Army moves to increased dispersion on the integrated battlefield, division level medical support will become ever more difficult. Small unit cadre and medical personnel will have a corresponding greater responsibility for the recognition and treatment of combat stress reaction.

Any training program should emphasize relatively simple principles. It should help soldiers recognize that there might be a need for special short term considerations for their battle buddy. Such considerations could include giving him temporary rest, getting him a hot meal, and the importance of having his battle buddy sit down and talk about his problems. In a garrison

environment, these are the kinds of actions which foster loyalty, trust and commitment, the building blocks of unit cohesion. This in turn is part of battle-proofing --- and increasing readiness --- through reducing the probability that stress problems will occur (Steiner and Neuman, 1978). Education should also be directed at teaching individual soldiers what to expect in terms of "normal" combat reactions. Normal somatic and psychological symptoms of combat stress have been well documented and described (Rath, 1980). This should help decrease the surprise and strangeness of a normal combat reaction and help the soldier decide when he can appropriately provide assistance or when other help is needed.

SUMMARY

Temporary manpower loss due to combat stress reaction (CSR) will be a major problem for the military in future war. The present study assessed the knowledge of a sample of 261 soldiers concerning CSR. Successful reintegration of the CSR is dependent upon both correct treatment and the behaviors of other unit members. Absolute knowledge of how to recognize and treat CSR was found to be very limited, and the typical attitude toward returned CSR casualties was one of mistrust. The authors present suggestions to correct these limitations. These suggestions, which require uncompromising command support, are designed to increase the level of combat functioning through ensuring correct management of CSR, and could increase levels of garrison functioning through more effective stress management.

REFERENCES

- Belenky, G.L. Combat Psychiatry. Unpublished manuscript, Walter Reed Army Institute of Research, 19 July 1978.
- Cassel, J. The contribution of social environment to host resistance. American Journal of Epidemiology 104: 107-123, 1976.
- Cobb, S. Social support as a moderator of life stress. Psychosomatic Medicine 38: 300-314, 1976.
- Dean, A. & Lin, N. The stress buffering role of social support; problems and prospects for systematic investigation. Journal of Nervous and Mental Diseases 165: 403-417, 1977.
- Ingraham, L.H. & Manning, F.J. Psychiatric Battle Casualties: The Missing Column in a War without Replacements. Military Review, 18-29, August 1980.
- Menninger, W.C. Psychiatry in a troubled world. New York: MacMillan, 1948.
- Mullins, W.S. & Glass, A.J. Neuropsychiatry in World War II: Overseas Theaters, Vol II. Washington, DC: Office of The Surgeon General, 1973.
- Noy, S. Stress and personality as factors in the causality and prognosis of combat reactions. Paper presented at the Second International Conference on Psychological Stress and Adjustment in Times of War and Peace. Jerusalem, Israel, July 1978.
- Rath, F.H. The Psychiatric Casualty and the Combat Effectiveness - Ineffectiveness Continuum. Medical Bulletin of the US Army, Europe, 37: 13-16, 1980.
- Rioch, D.M. Problems of preventive psychiatry in war. Army Medical Service Graduate School, Walter Reed Army Medical Center, Washington, DC, October, 1954
- Steiner, M.D. & Neuman, M. Traumatic Neurosis and Social Support in the Yom Kippur War Returnees. Military Medicine 143: 866-868, 1978.

TABLE ONE

AVERAGE NUMBER OF CORRECT AND (INCORRECT) DESCRIPTORS & TREATMENTS BY GROUP

Group	DESCRIPTORS		TREATMENTS	
	Recalled	Recognized	Recalled	Recognized
enlisted (n=187)	0.9 (0.8) ^a	4.6 (1.8) ^b	0.5 (0.8) ^a	2.7 (2.1) ^b
medic (n=27)	1.5 (0.8)	5.4 (1.7)	1.2 (0.6)	3.2 (2.0)
officer (n=45)	1.7 (0.7)	4.0 (1.2)	1.0 (0.5)	2.1 (1.6)
total (n=261)	1.1 (0.8)	4.6 (1.7)	0.6 (0.7)	2.6 (2.0)

-
- a. The average numbers of incorrect responses erroneously listed are in parentheses
- b. The average numbers of incorrect responses erroneously selected (from a list) are in parenthesis.

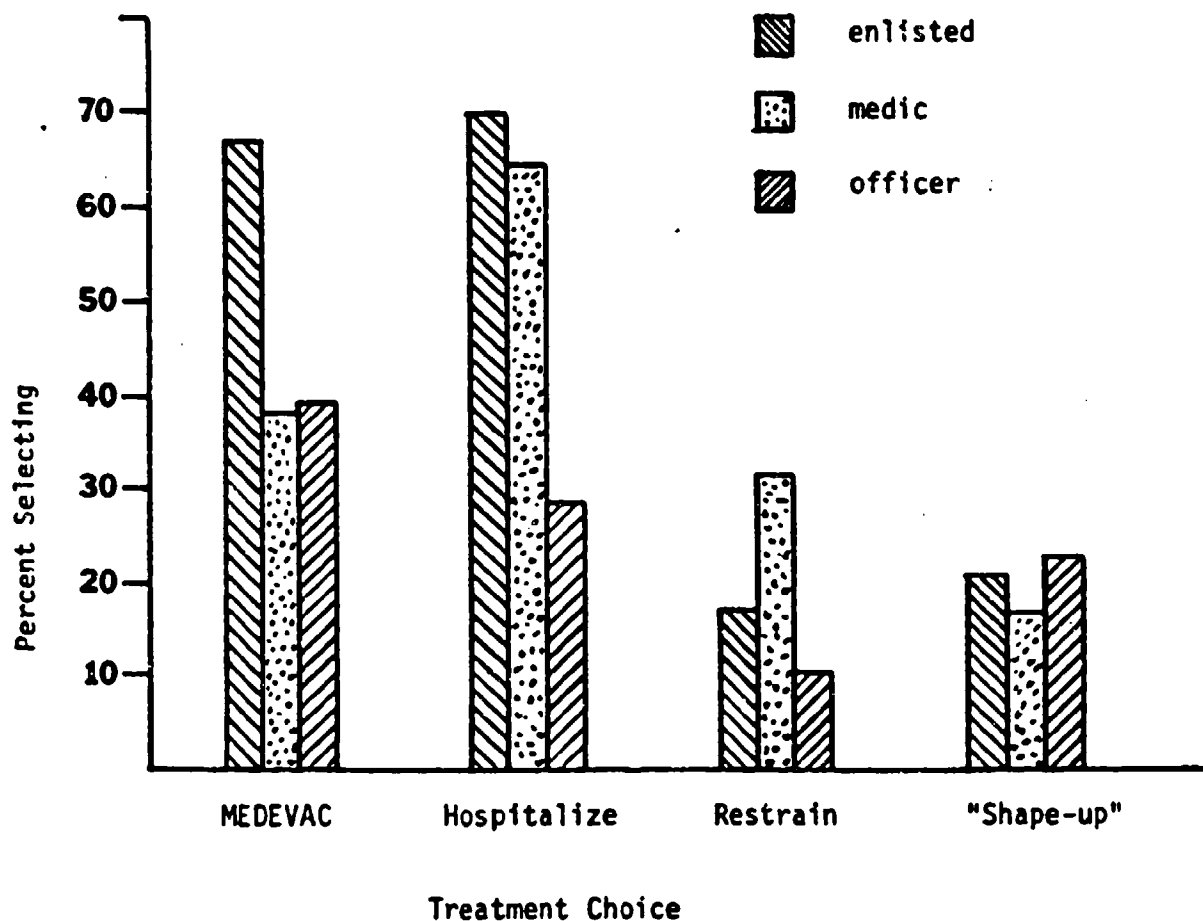


Figure 1. Percent of each group (enlisted, medic and officer) selecting treatment alternatives which usually impede recovery (see text for explanations).

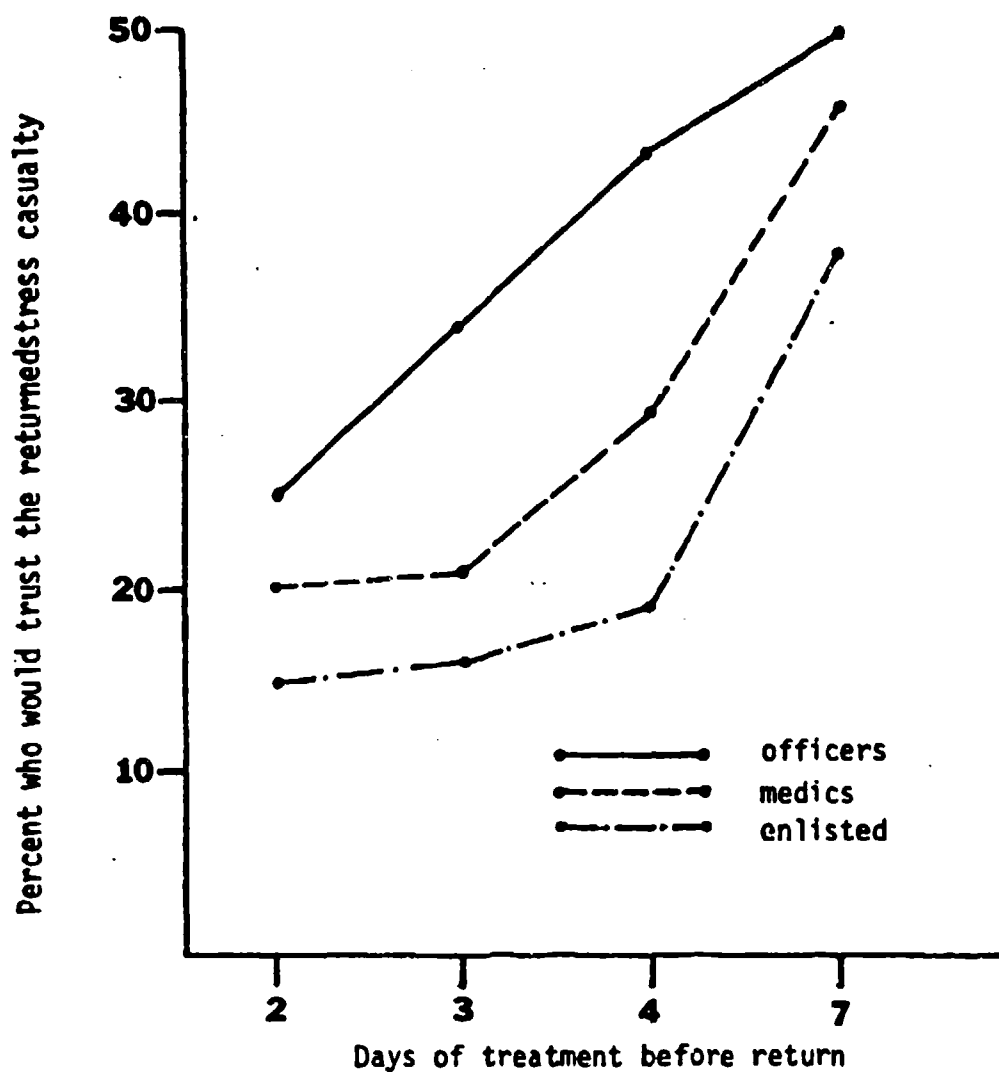


Figure 2. Reported trust by officers, medics and enlisted of the returned stress casualty for each length of treatment.

NOTES ON RECENT COMBAT STRESS SUPPORTS

INTRODUCTION

These are notes taken at the 4th Combat Stress Workshop held at Fort Sam Houston, Texas, 18-21 September 1984 and hosted by the U.S. Army Health Care Studies and Clinical Investigation Activity. These notes are my interpretation of the presentations, and are strictly unofficial.

COMBAT STRESS CONTROL IN THE COMBAT ZONE

Presented by Colonel James Stokes of the sponsoring activity.

Doctrine on forward treatment of combat fatigue patients in the U.S. Army actually reflects their doctrine of wishing to treat everything as far forward as possible. They would like to prevent cases, use brief forward treatment interventions if possible, and ship out only those patients who are not likely to be able to return to duty. To this end, they would like to use modular units which are organized for combat support, which can perform related functions in peacetime. Their new regulation, AR 40-216, dated September 1984 and entitled Neuropsychiatry and Mental Health in the Theater of Operations, contains a great deal of the doctrine cited in this presentation.

The Army terms combat fatigue as "battle fatigue," and categorizes three degrees:

- mild, defined as treatable in the unit,
- moderate, defined as can't stay in the unit but can be treated close and return to duty, and
- severe, does need special medical and mental health treatment, which implies evacuation to a specialized treatment facility. This is not a prognostic classification, but an operational definition of degree of severity based on the requirements for the management of the case. Where active, forward treatment of battle fatigue prevents the "contagious" spread followed by secondary gain if patients perceive that they will be shipped away from the battle. Rapid return to duty avoids the "evacuation syndrome."

The role of psychiatry within the combat unit is (a) education before the combat, (b) consultation before and during combat, staff work before combat, and differential diagnosis and triage during combat. Also, mental health workers can reintegrate recovered cases back into the unit.

Soviet doctrine calls for all out, stunning attacks which will overload us with rear echelon disruption, unconventional warfare, disinformation, and thus cause "battle paralysis," where people are simply too stunned to respond. Several factors will contribute to this:

- "High tech" war will lead to mass casualty-producing battles.

- This will be the first combat experience for many of the junior troops.
- We can expect continuous operations, with attendant sleep loss and somatic fatigue.
- We may expect some hits from friendly fire.
- The high mobility of our combat arms may limit some of the forward treatment facilities.
- Rear units, classically considered safe, may be hit by deep attacks.
- In summary, all of the above factors may lead to a high ratio of battle fatigue to wounded in action, more than the conventional NATO assumption of mid-intensity war which has a 1:3 ration.

Moving on these assumptions, Colonel Stokes went on to discuss a new way of supporting Army units with integral mental health support, which itself is organized into squads, platoons, and companies. They plan for these units to be highly mobile, with their own transportation (three vehicles and radios), still living in tents or buildings of opportunity, and taking with them simply enough material to allow sleeping and feeding of some combat fatigue victims: air mattresses, cots, blankets, hygiene packs, portable rations, heaters, and other such equipment. These people will triage patients in the ordinary way, and will evacuate the truly mentally ill to rear echelon combat support hospitals oriented toward return to duty. No patients will be sent directly to evacuation hospitals, which are generally oriented toward evacuation rather than return to duty. The organization of these teams includes psychiatrists, psychologists, and clinical social workers, as well as one or two psychiatric nurses, an occupational therapist, and several psychiatric technicians. They also plan to involve the Chaplain and the Chaplain's Assistant in this endeavor whenever possible. They note that, whatever the estimates of casualties included in the battle estimates, this number should be doubled for chemical warfare. The stress of chemical warfare has a tremendous psychological effect, as well as the obvious effect in the increasing the number wounded.

REVIEW OF COMBAT FATIGUE IN ISRAELI DEFENSE FORCES

Presented by Reuben Gal, Ph.D., of the Israeli Defense Force, currently serving with the Department of Military Psychiatry at Walter Reed Army Institute of Research.

The Israeli forces were naive at first about psychiatric problems in combat, but they became aware of them during the Yom Kippur War in 1973. We put six field psychologists at a Brigade level, and they worked in pairs at the smaller units. They were parallel to medical corps, but not subordinate to medical corps personnel. They reported directly to the Deputy Chief of Staff for Personnel. The medical corps had a parallel mental health service including the psychiatrists, psychologists, clinical social workers. During the 1983 war, we had the first test of the principles of forward treatment of psychiatric patients. (Here, Dr. Gal repeated a variety of facts and statistics which had been previously published in the WRAIR Report on the Israeli Campaigns.) He repeated the principles of the Israelis, "walking and talking," which infer that

the patients are kept out of bed and in some sort of activity status, and that much talking of the debriefing sort goes on, but relatively little classical psychotherapy. They use sports quite a bit on individual and group basis, and allow some abreacting in social settings, but not so much in therapeutic settings.

Dr. Gal emphasized the importance of keeping the psychologists in teams so as to help each other out. By providing their care within the combat area, they experience combat also and therefore had less guilt feelings in returning patients to combat than those psychologists who worked in the rear and who felt guilty about sending some back to the combat when they never went themselves. Dr. Gal met some of the psychologists who were working in these areas, and did some therapy himself with those people, dealing with their own guilt feelings. (A member of the audience at this point repeated Col Mike Camp's observation that psychiatrists sent to Vietnam who began their treatment experience at the front did better in returning soldiers to combat than did those who started their practice in the rear. This is the opposite of "easing them in" to the therapeutic situation in combat!) In such instances, "rest" for the therapist would be to go to the front and visit with the troops. Mental health professionals in the rear tend to exaggerate the severity of the symptoms they see, because they have less experience with the norm than those who were treating at the front. "We were all shaky."

In response to a question, Dr. Gal reported that the mental health professionals did not breakdown themselves. There was some intermittent burnout, but this was mainly among the enlisted troops. The role of the helper may help strengthen them in their own combat experience: they have to help others, therefore they cannot afford to breakdown themselves. He also noted the value of clinically evaluating troops in the context of combat, because of the tendency of therapists to exaggerate symptoms when they were away from combat. "When is a patient not a patient? When you don't count him." This was in response to comments of the difficulty in counting combat fatigue victims when they were treated so casually. Actually, his comments seem to me to indicate the value of the preventive visit to the combat group itself by psychologists before anyone was identified as a patient. In support of this, he told an anecdote about talking to an infantry company who had just come out of a combat situation. They were talking with each other, and one soldier commented that when he saw his Captain standing there, he found the strength to keep going on in combat himself. In response to this, the officer was crying quietly in front of his troops, and was received by them with mutual support and respect. This group had no combat fatigue casualties. He noted also the anecdotal support of the value of religious faith in keeping combat fatigue rates low, in that some of the very highly religious orthodox units did better than the less religious units.

Dr. Gal felt strongly that the designation of a man as a combat fatigue casualty should be done by an officer, or by a medic. Rather strongly, he felt that the patients designated by peers as such might actually be reflecting the anxieties of the peers, rather than being actually in trouble themselves. If a patient is misdiagnosed, he should be caught early and returned directly to the line.

EVALUATION OF MORALE

Presented by Lt Colonel Rick Manning, Ph.D., Department of Neuropsychiatry, Walter Reed Army Institute of Research.

Morale is easy to talk about, but harder to find. Most literature is Anglo-American, and comes from peace time or garrison situations. Dr. Manning (with Dr. Gal's help) reported on the study comparing U.S. Army morale to Israeli Defense Force morale using a questionnaire. The questionnaire addressed a number of issues, including the level of the Unit morale, its perceived combat readiness, the conditions of its weapons systems, the readiness of individuals to fight, confidence in Unit leadership, confidence in self, question about the probability of combat, and general Unit cohesion and familiarity with the local situation.

THE BRITISH NAVY IN THE FALKLANDS

Presented by Squadron Commander M. R. O'Connell, a Psychiatrist with the Royal Navy.

Dr. O'Connell opened with a recollection of the suddenness with which the news that they were going to war came to him and to his associates. They had a tremendous spurt of activity in reading their ship, the cruise vessel Canberra, to carry several troops to the Falklands. They felt a tremendous morale uplift by the farewell given along the shoreline as they sailed from South Hampton. Once under way, they found the suddenness of the departure had to be worked through. He personally felt that he wasn't prepared for psychiatric evaluations under this situation, and worked out a format to teach his colleagues about psychiatry in the combat area. He saw this as a continuum from the initial selection of the troops, through basic training, unit training, pre-combat alert, and the combat experience itself. He defined morale as the general sense of well-being felt by the group, with confidence in its ability to survive combat stress, and in its identity as a group, and as a number of competent individuals. He felt that there was a very good effect of the military band on board for morale, and also felt that the Chaplains were very good in strengthening the troops in matters of faith. He noted the combat effectiveness curve, which peaks at about 90 days. He noted also that things began to feel truly serious when the troops were bled so as to have an onboard blood bank ten days before the invasion.

One of the real surprises of their invasion was the suddenness with which air attacks would come. They would go almost instantly from a yellow to a red alert, have the attack, and it was over. "You get used to it after a while." He found it very useful to keep the troops busy, so as to keep their minds occupied. One observation of particular interest to me was the behavior of the troops under air attack (one ship, for instance, was attacked 17 times in one day). The troops would tend to go up onto the deck, and to shoot at the airplane

with anything that they could get their hands on, including pistols. Although this sounds silly on the face of it, he said it was a tremendous relief for their anxieties to be able to shoot back, even knowing that it was not likely to be effective. However, he also observed that the number of tracers going through the air must have been unnerving for the Argentine pilots, and he thought that perhaps this would have some real value in throwing off their aim, even if no one got hit.

After several of their ships were sunk and the survivors came to the Canberra Dr. O'Connell had the opportunity to work with them on their emotional needs, even if they were unhurt. He found they had a need to express a relief at their escape, anxiety over their future, a fear of future trauma (they were after all still on board a ship), their anger, their grief over loss of comrades, and their guilt over surviving when others had died. He spoke also of the intense identification of sailors with their ship as an all powerful environment, and the tremendous sense of loss that they felt when the ship disappeared. This also affected other sailors who saw ships sunk, in a way that he says only another sailor can understand.

He helped these survivors to work through their obligation to make contact with families of dead friends, to the point where they assigned within themselves the names of who they would visit when they got back to England. He took about ten treatment sessions with them.

Dr. O'Connell noted that he felt on a personal "professional high" for about ten days during this period, when he was sorely needed "I got them to sit down with me and tell me what happened." In the situation above, Capt O'Connell would sit down with the troops, and use the usual "group therapy" rules: first name basis, confidentiality, and so on. He cleared this with the officers first, and found that they gave him carte blanche to do his job. Interestingly, there was little anger expressed at the enemy, who were "only doing their job." Anger was expressed toward the Commanders, and the people who put them in the situation where the ship was unable to fight back as they felt it should. He found some guilt, but more to the point, he found that memories of the attacks were distorted even after one day. Thus, much of the group worked toward reclassifying their impressions and rectifying their memories of what had happened. Where one had made a mistake, another survivor would be able to correct him, and so the total corporate experience of the rescued sailors was straightened out by the therapy sessions. He found that sailors would bring their wounded buddies to the group to get help, and noted also the effect on group interrelation of the ear trauma, which is caused by heavy explosions. Thus, you have to be careful in combat groups that everyone can hear what is going on. As another aside, he noted specifically that the Captains of the ships had not been able to predict who would do well and who would do badly in the combat situation, even though they knew their troops well. (In my opinion, this has been the experience of everyone who has talked to me about any sort of combat at all.)

Dr. O'Connell mentioned the emotional needs of the rescuers, and the other doctors. They felt a need to rescue more, to have saved everyone, they were anxious over surviving themselves (their ship had been attacked too), they felt anger over the bad weather and the hostile aircraft which kept coming in at them, and resentment over some of the lack of thanks from the patients or the people whom they had rescued. Dr. O'Connell felt that drinking alcohol served somewhat as therapy for these medics, since they actually talked more than they drank. In several instances, they barely touched the bottle, but used its presence as the excuse for talking with each other about things they might not have mentioned otherwise. He felt that alcohol did better than Dalmane as a sedative for the patients at bedtime, and cited specifically how much it meant to the patients to have some feeling of power over their own situation. For instance, he took bottles of liquor and put them in the nursing station, with a clear note that the patients could come to the nursing station, ask for the bottle, pour themselves as much as they wanted, and drink it without being chided by the medics. In fact, almost none of them used this privilege, but the knowledge that it was there was very reassuring to them, and help to reestablish their feeling of control over the situation. Indeed, the knowledge that they could do this relieved enough of the anxiety where then most of them went to sleep with neither alcohol nor sleeping medications.

Dr. O'Connell spoke of the value of the newspapers and the mail and so on in helping patients to understand what had happened around them. Frequently in combat the situation is so confusing that you need a newspaper or other sort of report to fit what you yourself have seen into the big picture. A corollary into this was the anger they felt when the news reports were false, and this was especially trying since they had 16 correspondents on board, who also got mad when what they had sent back was distorted by the editors. He commented that upon their return to England, the cheering of the crowds and the formal reception meant a great deal to them, as did the warm welcome and support of the family and neighbors. However, he was surprised to encounter some resentment in his colleagues who were left behind, in that they had had to work harder to keep up with the patient load while he was off on what they considered to be a great adventure.

Other random observations from Dr. O'Connell

- It was very useful on board ship to have the Captain or some officer on the intercom giving information on the enemy action to those who couldn't see the action, and also helped get the word out instantly as to the battle situation.
- He mentioned strongly the therapeutic value of shooting back, and said that the stewards and everyone shot pistols and threw everything they could to put off the enemy pilots.
- He spoke of the need for privacy for the Chaplain and the Psychiatrist in the ship, and also the need for ease of access to them under informal conditions, 24 hours a day, and privately. The thrust of this was that these people specifically need private quarters without room-mates.

- He talked of the denial of the psychological trauma of having a ship sink, which then might show up later if not worked out. The sailor in this situation, as noted above, loses his powerful ship. He also loses his group identity, if the survivors are scattered among several ships later.
- He spoke of the value of the troops seeing the leader's legitimate emotions if the leader has been a competent leader. In this, his comments were much like those of Dr. Gal's in the previous presentation.
- In terms of group morale, he told about a marine who had been sent to him for malingering because he constantly fell behind, supposedly because of leg pain, on night maneuvering. In fact, the marine was night-blind, and he had been helped through training by his comrades who knew it. He held back in combat to avoid endangering his squad, since he could not see, and he protected their having covered him during training by faking a malingering. In fact, he was prepared to take a bad conduct discharge rather than to give away his friends for covering for him. This is the first case I have ever heard of faked malingering.

U.S. MARINE/NAVY OPERATIONS ON GRENADA; U.S. MARINE OPERATIONS IN LEBANON

Presented by LCDR John Mateczun, M.D., Department of Psychiatry, Bethesda Navy Hospital; Lt Betsy Holmes-Johnson, Ph.D., Clinical Psychologist, Department of Psychiatry, Bethesda Navy Hospital.

This report concerns the psychological and psychiatric support given patients treated in a tertiary medical facility. The Grenada invasion occurred 25-26 October 1983, and the Beirut bombing occurred about the same time. The patients began arriving at Bethesda Navy Hospital about 30 October to 2 November. They held a memorial service for the dead on the 9th of November, and by Thanksgiving, most of the patients had been discharged.

The first warning and planning phase began about the time the invasion and bombing occurred. The psychiatrist was not included at first, and they found that they had to get themselves involved rather than being invited. There was lots of denial, especially by the surgeons "they've suffered enough already—why do you shrinks have to come and bring up what they suffered?" They had to go to the hospital commander to get the psychiatric consultation directed for all combat victims, not asked for on a per case basis. (In order to get the hospital commander, they said in essence "which of the patients do you want to use when the press asks to interview some—we can help you out.")

The location of the patients in the hospital was an issue—were they to be kept separated or together. They found that keeping them together was much better in fact, the patients searched each other out in order to get together. There was lots of confusion in the hospital when they got the news about the casualties coming as to what wards to close, whether the wounded should wear uniforms and so on (at this point Dr. Mareth, Psychiatrist at Weisbaden who first received the casualties from Beirut, got the word that he was supposed to stay out of the psychiatric end of things, that the Navy would do it all.

Dr. Mateczun says that there was no coordination at all at his level with anything that Weisbaden was or was not going to do, and that he certainly had not sent any word that the Air Force should stay out of it.) The Bethesda people developed a brief questionnaire for ward use, including the information that they had on combat casualties, and also the State-Trait Anxiety Test and some others of a similar psychological nature. They found it helped a great deal in presenting such questionnaires that all patients were being seen, and therefore that none was being singled out.

Lag Phase. Among the things that were done during the period of waiting for the patients was to prepare for the media. (All of the attendees at this conference agreed that the media coverage of such events is an absolute stressor to all concerned and needs to be very carefully addressed.) In preparing for the staff experiences, they got members of the senior medical staff with combat experience to tell about how they had handled casualties in previous wars. This helped the staff to get their own fantasies about combat straight, so that they could deal with patients better. It was especially important that all nursing shifts were covered, because in such matters it is easy to forget the 11-7 night shift. They also supervised the physical preparation of the ward. They were going to use two patient wards as private rooms at first, because the staff thinks of "private" care as "good care." However, this isolates the patients from each other, and is the wrong way to handle them. Instead, they were used as two-person wards, and the patients were later put together. Group sessions of patients helped counter this tendency to isolate them. Both the Grenada and Lebanon casualties tended to stick together, and did not tend to "one-up" the other.

New staff, both officers and enlisted, were nervous about the way the casualties would be handled; the older staff knew better. The sharpest presentation here emphasized that if you want group time, you have to program it ahead of time with the nursing staff. Otherwise, some of the group members will be off getting blood drawn, x-rays, and so on. By prior assignation of the time (1500-1600 is a good time on most wards), you could issue the order "I want everyone on the ward." Nurses follow directions well, and they would follow suggestions also. One must ask the patients, though, and so get straight with the patients first as to their desires about group meetings.

Hospital Phase. The psychotherapists ran into great deal of denial from the other physicians, but found that the nursing staff understood quite well what it was they were there to do. In fact, the psych staff functioned as sort of ombudsmen for the patients, taking the wishes of the patients and transferring them on order sheets to the nursing staff. They interviewed the patients, used the psychological tests, and the symptom check list 90. The groups facilitated the handling of grief, and as the process continued, it became apparent that the patients would benefit from a formal chance to mourn; at the suggestion of the staff, they put together a memorial service. The chaplains were brought in on this, and handled it extremely well. Some of the unexpected issues that the psychotherapists had to deal with were reported atrocities

(which turned out to be false), self-inflicted wounds, and the psychic trouble involved with handling bodies of comrades. In one case, they had a brief reactive psychosis. They also noted that handling patients under these circumstances may involve difficulties from the jet lag from the patients' port of origin to the hospital. They also found it very useful to have women work with the group process, because it diminished the all-male ambience and helped get rid of some of the anxieties the men felt about the fact that their bodies were mutilated. It appears that women can reassure men about this better than other men can. It also helped the resocialization process. Also, the patients from Beirut were completely dislocated in time if they were asleep when the bomb went off, and rendered unconscious by the explosion. Their experience was of going to sleep in Beirut and waking up in Weisbaden, and it took them some time to process what had happened and to sort of get straight in their own minds how they had come to be finally in Washington, DC. This was so important to the group process that the group insisted that all casualties be a part of it. Thus, when they discovered that some patients were wounded too badly to come to group meetings, the patients insisted that they hold the group meeting in the patient's room, even when he could not respond or participate.

The therapists used the S.L.A. Marshall debriefing technique—you put the men together and let them go at it. They put the Grenada and Lebanon casualties in the same room, and found that they worked okay together and had the same perspective. The Marines started talking to each other at first, introduced themselves, and then the officers took charge. Unlike the British in the Falklands, this was not done on a first name basis. By having them talk about the experiences, they began to deal with the emotional experiences as a preventive measure. The context of this debriefing technique is to ask questions "Where were you" "What did you see" linking them together with the experiences to put everything into a context which, because of the reasons listed above, was easier for the Grenada victims than those from Lebanon, who had less contexts. There was some re-ranking in that the senior officers took charge of the group process at first, and made it mostly information sharing. (Dr. Rock from Landstuhl who had some casualties also found that it took his group about a week to loosen up, and finally, on the weekend, they had a party and under a "social" event the hostility and anger came out from under the rigid control which the patients had exhibited up to that time.) At Bethesda, the families, VIPs, etc., were really demanding of the time of the victims, with telephone calls, requests for interviews and so on. At times the patients had to put signs up refusing to see anyone.

The psychiatrists and psychologists said the groups were to be provided as a service to them, and they were "welcome to come" without any pressure to make them attend. Because of the lack of pressure, they began to see the psychotherapists as advocates who could intervene for them. In other words the patients borrowed the power of the therapist and used it to facilitate the group process, decision makings, and other things that had to be done. The therapists would guide them, but allow them to make their own decisions. "Oh—that's a good idea you just had." If approached outside the group, the

therapist would insist that the member bring the issue back to the group, and in each instance the group would validate it, "Yes—I felt that too." No where else in the hospital were the patients allowed to feel sad or angry. Every where else, they had to be "good" patients, be able to meet the press, and talk about their experience in an upbeat way. Their peers who were not in the hospital, i.e., were unwounded, could grieve in private, but the patients in the hospital were not allowed to outside of the group process. They had memorial services all over the country, and in that context the men on the ward decided to have their memorial service too. They found the Chaplains did this beautifully with ritual involving a token element such as a helmet or an M-16 shoved in the ground, canteens, and other representations of combat. Second, the command representatives were there from their own service, for instance, the commander of the hospital came. Third, there was the pastoral element furnished by the Chaplains. The Chaplains helped the men fashion their own service. (In this context, the British psychiatrists brought up the custom of burial at sea, and noted that the whole ship "came to a stop," with the service being broadcast to those who had to remain on their own station. The ritual involved in these things is of great meaning to the men, and gives them a feeling of closure to the combat losses.) (The handling of the dead bodies it turn out to be a real issue at war. The Chaplains help, and note that touching the dead has a religious symbolic value. Another of our conferees noted that when he was in combat, they would handle the dead bodies of their comrades without difficulty unless the body had been dead long enough to stiffen up, after which time it was regarded as aversive rather than sympathetically.) It was a cathartic effect of the memorial service for the physicians and nurses as well as for the wounded. The Chaplains moved the men toward dealing with their survival grief—"You may be thinking 'how can I deal with my own life after this'" "I have to deal with my own life too." The ward was very quiet the afternoon after the memorial service, but apparently it was a cathartic moment for everyone. Also, every man on the ward got a memorial brochure and these are really valued.

One must listen to the nurses tell about the ward behavior for any evidence of unusual behavior of the men. They may report one man, who had true psychopathology predating his wounds, was hoarding his bandages, not eating his food (thinking it was poison), etc. Another managed to arrange his life so that all his care was given by females, and avoided all male therapists, technicians and so on. The one who became psychotic was given 5 mg of Haldol one evening and reconstituted quite quickly. The morale was that one had to be very careful about which patients were put in front of the press, since some did have fairly severe reactions. Notably, the men with self-inflicted wounds (who did not get Purple Hearts), were not excluded from the group in any sort of way, and were apparently accepted by the other wounded as having had their own problems. They were in all group processes, and were never segregated out.

The therapists also had to work much with the nursing staff about their various issues of what they were hearing. Some of the nurses and technicians were quite moved by the combat experiences, and had to have a chance to decathect

themselves. Further, the families of the therapists (who were working 16 hours a day for approximately one month) had to be considered also, since they had given up so much of the time of the therapist. It helped that they saw on TV and in the newspapers what important work their mother or father was doing, and in at least one instance they visited the ward to see some of the patients. They were quite supportive, and there was no family difficulty because of this.

One problem they had not foreseen was the difficulty in dealing with patients who were DoD civilians, or were straight up-and-down civilians who were wounded in the attacks. Hospitals should make provisions for dealing with patients of undetermined status.

The people from Bethesda also had to deal with the families of the wounded, and noted that the worst the injury, the more the family felt "they'd be better off dead." This equated with the family saying "I can't deal with this." There were important career issues to be dealt with among career military people who had disabling injuries, especially those who were fliers who now would have to be permanently grounded. At first there was a lot of anger and grief to be dealt with, as in every wounded person. No one had real problems with minor injuries, only with the major injuries. The mental health professionals did a lot of telephone work with family members who were not able to get to the hospital, and shared information with them about the extent and implication of the injuries. They found they needed careful discharge planning done in the social work context for when the wounded men left the hospital. Mental health professionals in the hospital did not work directly with dependent children, but worked instead through the spouses with children of wounded men. They were also able to do some work through the "spouse infrastructure," as one might through the squadron commander's wife or other organizations of informal spouse support. Dealing with military deaths usually moves out of the spouse network and into the formal military network. Especially after the Beirut tragedy, they found that wives of survivors tended to move out of groups involving wives of the deceased, because of survival guilt. In other words, it was difficult for a spouse of the wounded man to deal with her problems in the same group where some of the spouses were dealing with their grief over the death of their military member.

Dealing with the media was a tremendous problem. No one wanted to set any structure for them, because the hospital wanted to be perceived as cooperating with them. However, the media and their handling of the combat environment was very definitely an issue with the wounded. For example, there was a great deal of anger expressed over a picture of a dead pilot published in National media. The group dealt with their anger by encouraging another involved service man to write a letter to the editor protesting the use of that picture. The 82nd Airborne was very protective of its identity and of its own people, whether the military member or family members. Word got out very quickly that there would be no interviews without a public information officer present. Bethesda found its protection of patients from the press not to be as effective, although the people from Weisbaden were able to keep the press under control

insofar as informal access to patients was concerned. However, the ability of VIPs to demand entry into ward situations is much harder to counter with, and on several occasions the visiting of congressmen or people of that sort left those visited in tears of anger or rage. "I felt like he was just using me to get his picture in the paper."

Aftercare.

Some of the patients had a consolidation of their symptoms into a more classic post-traumatic stress disorder in about seven weeks. They found it hard to face going home after living in the protective environment of the ward. They found that, where their comrades who were unwounded had gone home to parades and formal receptions from the community that that might not be available for them. Lots of women wrote to the men who had been wounded and this led to a chance to deal with the sexual issues rather humorously. The issue really was that the men who had been wounded felt that they might be unattractive to members of the opposite sex, and it was helpful to them to share this fear with others in the group and to be reassured about it. Also, they were greatly cheered by the number of children who wrote. The walls were covered with cards and posters sent from schools and so on. (This also had to do with the people who went to the Falklands, and they found time to answer all the childrens' letters.) The ward staff felt a great letdown as the wounded finally left the hospital. They felt a loss of status and importance in going back to the ordinary military patients. The mental health people at Bethesda tried to set up a period of group interaction among those who had dealt with the wounded, but were not able to set up appointments for them probably because the chain of command did not support this activity. They felt this was especially important for the younger corpsman, who might have been personally threatened by the similarity to their own situation in the wounded. At any rate, they planned to continue efforts to see these people on an individual basis, if not on a group basis. They made closure with the liaison staff, their colleagues, through morning meetings and through listening to each other. They felt that there might have been some interprofessional jealousy among those of their colleagues who were not involved with the wounded, just as the people who went to the Falklands were regarded somewhat jealously by those who had to stay behind and do the regular hospital work. They found that they had to support themselves with each other, and so they became very protective of their experience and their data, not wishing others to tap into it for their own purposes. This issue obviously will have to be dealt with interpersonally.

During the question and answer session which followed this presentation, some interesting aspects were brought out. For example, patients become very anxious about leaving anyplace where they are, regardless of the desirability of the next stage in evacuation. Since military evacuation frequently moves patients through a half a dozen or more facilities, this may be an issue to be dealt with in any future conflict. Patients become familiarized with the routine and with people around them, and it is very disruptive to swoop them onto an airplane and carry them several thousand miles away to have to undergo

a total new introduction to medical personnel, press, and so on. Also, there may be some anxiety as they get near to the places where their families may be able to see the extent of their wounds for the first time. There is a great value in having the care givers phone each other directly to transmit information about these patients. Some of the participants in this workshop were meeting each other for the first time, and were surprised to find that each had faced the same problem separately. Obviously, it would have been much more efficient for people at Weisbaden to talk directly with people at Bethesda, rather than having each group discover the use of facts independently. The participants in this workshop decided that the levels of interservice rivalry get in the way too. This seems to occur mainly at high levels, and the feeling among the participants was that care givers at the O3-O4 level get along very well with each other regardless of the color of their uniform, whereas the hierarchy into the O6, O7 and O8 level may have to protect interservice turf. Presentations such as this workshop were very helpful in processing such things.

The presenters also noted that, although there is obviously a great deal of interesting and important information to be gathered in such experiences, it is very hard to deal with them in a research sort of way when the situation is so immediate. Still, meetings like this tend to bring out at least anecdotally some of the commonalities of experience which probably would be true regardless of what was happening.

There was some emphasis on the difference in the combat experience of Marines wounded in Beirut, who went to sleep in one country and woke up in another, versus those in Grenada, who were engaged in combat and felt rather successful about it. One group had been shot at and been passive for months, having very little sense of specific mission, and being attacked while they were asleep. The other group was more aggressive, active, with an acute sense of mission and of accomplishment. With all these differences, The Beirut and the Grenada group got along very well together, and were very supportive of each other—"We were all Marines." At first, the Grenada troops were more active and the Beirut troops were not, but later the Beirut troops were drawn in and they all felt a sense of commonality. The following factors could be compared and contrasted between the two groups.

1. Memory. Grenada troops desire to reconstruct what had happened, and were able to. The Beirut troops were unable to recall what had happened since they were asleep, and had to reconstruct what had happened through outer sources such as press releases. For this latter group, trying to find out who among their comrades was dead was a very difficult and trying moment for them.

2. Sleep. The Grenada had difficulties with sleep continuation, having intrusive dreams about killing and intrusive thoughts. The Beirut had initial insomnia and were afraid to sleep, because of jet lag and also because the wounding experience had happened while they were asleep.

3. Survival Guilt. Grenada troops reported no survival guilt, although the Beirut troops already had some showing up.

4. Group Goals. The Grenada group wanted to rejoin their unit and get back to it. The Beirut troops mainly wanted to go home, although they were somewhat afraid of the effect of their wounds on their families and loved ones. Some of those who went home then wanted to leave home and return weeks ahead of time. In other words, they were still somewhat uneasy in the home situation and wished to return to the more comfortable military environment.

5. Public Attention. At first the Grenada troops were embarrassed by their attention, and didn't want interviews. However, the Beirut troops wanted some attention, perhaps to validate their own experience, and also wanted parades and interviews at home.

6. Pipeline. The Grenada troops were aware of events occurring along the evacuation trail, whereas the Beirut troops frequently were not especially those who had been unconscious during the major part of the evacuation.

7. Cognitions. The Grenada troops had some intrusive thoughts about killing, and there was some discomfort with the excitement and aggression that has been generated by their experience. Talking to the press gave some sense of closure to some of the officers, but the enlisted men preferred to discuss this aspect of their experience only with other enlisted men. Beirut troops simply did not remember, and therefore had no intrusive thoughts.

Similarities.

The following similarities were noted by both troops.

1. Their ability and interest to reconstruct experiences.
2. There was little spontaneous attention paid to the grieving process. That is, the therapist had to facilitate this through the group process.
3. Both groups were cooperative with demands made upon them, so much so that the psychologists and the psychiatrists had to limit this for them by acting as advocates, letting them know it was OK to say no. Apparently both groups had a great sense of obligation to the American public to speak to the press, even when they didn't feel like it.
4. Both groups were accepting the others, and there was no rejection of anyone, even those with self-inflicted wounds.
5. Significantly, there were no purely psychiatric patients evolving from either experience.

Finally, there was an agreement that it made a great deal of difference to those who were badly wounded that the less wounded visited them at the bedside, in order to validate their experiences, reassure them as to who was alive, and otherwise keep them included in the medical community. It is easy to isolate people in the combat environment once they get in the ICU, and these people need support just as much as the less seriously wounded.

In summary, there was an immense difficulty in coordinating casualty care in joint operations. This difficulty can be overcome to some extent by prior planning.

OPERATIONS IN GRENADA

Presented by Colonel Jesse Harris of the U.S. Army Medical Research Unit at Womack Army Hospital, Major Gary Riggs, Chief, Department of Psychiatry at the MEDDAC at Fort Bragg, Captain Fullerton, a Ranger/Psychologist from Fort Bragg, and Captain Johnson, a Psychiatric Social Worker from Fort Bragg, North Carolina.

The Grenada Invasion included a 12-hour of high intensity war which then tapered off into multiple days of sniper warfare. It involved elite units, "The first to die," whose life is spent in training. They were about 19 years old on the average, and were quite excited about the military aspect of the invasion. They were recalled in a way that was very similar to a regular alert, although their wives picked up subtle signals (unusual deployment of airplanes, being placed on alert while on a Defcon 5, and so on). There were therefore lots of rumors about what might be going on and where they might be going. The troops were tipped off by drawing unusual equipment, and by the excitement of those around them. This began to raise serious questions about them, and they became worried about their families and, because they were in "lockup" (incommunicado), were unable to communicate with their wives, and do the myriad of little things that one might ordinarily wish to do: pay the rent, be sure the car windows were up, be sure they turned off lights in their apartment, and so on. Many of the troops in lockup in a base theater environment began to write "last letters" to be delivered in case they were actually wounded or killed. The officers became somewhat anxious with the thought "Have I taught my men everything they need to know in order to survive combat?" Many of the leaders involved in the planning of the invasion went without sleep for 24-30 hours before the actual invasion. Among their troops, many of the men discarded the food they were issued in order to carry extra ammunition—this led to ruck sacks and packs which were much heavier than they were ordinarily used to carrying, and thus they were subsequently fatigued. Order discipline was poor among many units, and they found that in the hot and humid environment of tropical Grenada, 2-4 canteens was not enough. (I have heard from other sources that water trailers were deployed late, and thus the troops were to some extent dehydrated throughout the campaign.)

The men in the airborne units went onto the airplanes, and were intense, as they are usually prior to jumps. In addition, the lack of information due to secrecy left many of the men confused and concerned about what they might be doing—for instance, they knew very little about any potential jump zone, and were uncertain as to whether they would jump or not. Also, there was a fear of being shot down while in the aircraft. However, some were looking forward to jumping because they felt they would be a lesser target jumping into an invasion area rather than landing in the C-130. This had to be balanced against their fear of landing in water, since they weren't sure about their jump zone.

For many of the men, the realization that they were truly in a war began with their seeing bodies. In the judgment of the people giving the presentation, this was a bad experience for them if the first bodies they saw were American bodies, and was much less traumatic if the first bodies they saw were those of the enemy. Obviously, they identified more with the GI bodies than with the bodies of the Cubans.

Among the stressors which must be considered is the stress felt by the family due to the shock of sudden separation. The post did a lot to keep the families informed, but couldn't tell them where their men were going. This is always a problem in a classified airlift. The men needed to know that the family was being cared for, and this was a great morale boost when word began to get to them that their families were being taken care of, and were kept informed by fairly sophisticated and carefully planned military operation. (I am not sure whether the Air Force has anything like this, but it strikes me as being an absolute necessity in deployments that the Air Force have a formal organization set up to keep wives informed. The Army apparently gave multiple repetitive briefings in the Base theater for wives who could attend anyone of three or four briefings per day.)

Sleep discipline was, as usual, a problem. It was very hard for the men to get sleep for the first few days, although those troops in Grenada were able to get some sleep there. The men left behind at Fort Bragg had to work very hard with the logistics and with the families, and sleep was some problem for them.

Hydration was a problem for some of the troops, and they had a number of heat casualties. This was due to a combination of diminished water intake, the unsatisfactory battle dress uniforms, the weight of the flak jackets (troops don't train in flak jackets ordinarily), and the heavier than usual packs. Food was not a problem, but could have been if they had used C-rations (which are heavy) in place of the more easily carried and more desirable MREs. The weighty ruck sacks that they carried were a problem in a sense, because it demonstrated a lack of confidence in their ability to resupply themselves. It would be much better to have the men carry less weight, and be absolutely sure they could get more ammunition when they needed it.

It was apparent early on that leaders were not prepared to deal with their men's grief at the loss of comrades in combat. Junior officers and senior NCOs need

training in grief management, and certainly this will be true in the Air Force environment.

On the positive side, they usually met light to no resistance, their clearly superior fire power gave them increased confidence in their ability to win, they found their fellow soldiers very supportive, and they derived comfort in knowing that their families were being looked after back at Fort Bragg. NCOs with combat experience in Vietnam were very supportive, and helped the men in dealing with the stress. The friendly Islanders were happy to see them, and were very reassuring to the men that what they were doing was the proper thing. However, they needed to know about the approval of the people at home, and this presents rather a paradox in terms of the press. In order for the press to report what they are doing, so as to inform the people back home, so that they can approve of it, the press must be allowed into the combat area. This is obviously a paradox much beyond the power of the medics to take care of, but I think we need to acknowledge that in today's society, soldiers and sailors and marines and airmen need to know that the public approves of what they are doing.

Capt Fullerton spoke on behalf of the line groups, and noted that the Rangers attributed their success to their periodic live fire exercises, saying this was the most important single thing in maintaining morale and combat effectiveness. They found as a matter of psychological readiness that it made a great deal of difference if the troops saw the enemy dead first. Also, they wanted to provide mainly positive data to the troops to keep them affirmative about what they were doing. They needed to know that there was nothing to be afraid of, and that this was a normal operation so far as combat was concerned. From the medical point of view, he felt that the Navy did especially well in providing medical care. The triage system worked, and the initial confusion about finding the wounded cleared up rapidly as people became used to the roles. (One must remember that in a brief operation like this, the initial confusion which would take place in any military operation was essentially all that happened, because by the time the confusion were solved, the combat was over.)

He emphasized that medics needed to be bonded to their units, and stated that the medics fought with their units until there was wounded to care for, at which point they broke out of the combat role and went into the medic role. This creates some ambivalence from medics, who have to contrast their attacking behavior with their caring behavior. The medics spent some time talking to the men about the issues involved, especially water and sleep discipline, and to talk to the men sometimes about pre-existing problems which worried them. As usual, the leaders got less sleep than the men did. Sometimes the Executive Officer would simply send the Commander to bed, to keep him from getting too tired. This is a thing that needs to be emphasized in the Air Force.

They finally developed a systematic re-supply system which went fairly well. Medics tended to hoard a lot of equipment, and showed some awareness of lessons learned in previous wars, such as always have a lot of IV fluids. One non-medic Vietnam veteran managed 19 casualties by himself in one fire-fighting case. Thus, the experience of combat is simply invaluable in dealing with the traumas of war as they occur early on.

One problem was that it was demoralizing to work with people whom they had not worked with before, in that they didn't trust them as they would their own people. This will always be a problem in a rapidly thrown together joint maneuver as opposed to joint maneuvers in which the troops have a chance to get to learn each other across service. In essence, Capt Fullerton felt that the cross service cooperation is enhanced by overtraining together, or by having organic helicopters and medics attached at the Brigade level and below so as to keep confidence in the medical care.

They found it hard for the medics to open combat kits for the first time and for a physician to work out of the combat kits for the first time. Realistic combat training is an absolute must for medics, and you cannot learn this under enemy fire. This validates some of the previous papers concerning the importance of realistic and trusted training in building confidence in a combat unit. The medics felt that they had been asked to do things for the first time that they had never done before. This is a difficult situation, because in peacetime medical centers, enlisted medics are simply not allowed to do the things that they are expected to do in combat. Solving this problem is much above the level of this conference.

For example, a line Vietnam veteran Sergeant took care of a medical corpsman who had a stress reaction and essentially was not functional for one day. He did not turn the medic in for treatment, but instead kept him with the unit, talked him through, and gave him structured tasks to do which enabled him to rebuild his self-esteem and confidence and in essence kept him with the unit until he snapped out of it and became effective once more. This is the kind of thing that needs to be emphasized to all of our line officers.

Major Riggs of the 82nd Airborne spoke about the tremendous amount of medical and line personnel turnover which occurred just before the invasion. The top Commanders and top medics were all new, and did not in all instances know their troops well. He was surprised to find the system worked as well as it did! The psychiatric technicians were not acknowledged by the Brigade surgeons in all instances, and he believes that people at the top must assure that all people deploying know who is who. (I've seen this in Air Force exercises, where some of the people deploying didn't know the new chain of command, and were not sure who was authorized to give them orders.) He found that they did not need the psychiatrists, but just the psychiatric technicians to take care of the few psychological casualties which occurred on station. Captain Johnson, the social worker for the 82nd Airborne, commented on the lack of overall medical supervision he saw on the beach at Grenada. There were a

number of competing medical units from several different sources, and there was some rivalry between them as to who got the patients. The helicopters tended to overfly forward treating units and bring patients directly to the rear medical units. He went up and traveled with the combat units for awhile, and validated again the discussion of combat fatigue being aborted in the line by SLA Marshall-type debriefing, rather than by specific treatment. He agreed with the rest of the conference that the definition of combat fatigue in real life may depend more upon the unit itself, rather than by the way the individual behaves. Clearly, some units will tolerate more combat reactions, and be more supportive, then will others. He made several points in "combat social work."

First, predeployment, he felt that the units involved deployed a lot, and actually had generated a fair number of casualties in peacetime operations. The family assistance centers in the local area were very helpful in decreasing the number of GIs who had to return to take care of severe family problems. Headquarters-level support is appropriate for such activities, and they have to be preplanned. Since the soldiers were not ready for such a sudden deployment, you found it useful to talk to some of them before they left, and to quiet some of their anxieties. He validated what I had heard earlier, that soldiers who had anxiety-symptoms while in the lockup were treated by brief intense intervention and being returned to the lockup. It is important not to have any secondary gain to such soldiers by relieving them of the responsibility to deploy.

The next point was that in combat, there was little experience among the troops, and less among the medical backup. Thus, training is vital such as the present workshop. He went into a rear support area in Grenada, and found the whole experience to be "so realistic." The Divisional mental health support was low, because the priority was for shipping out combat troops, and so at first he spent his time in Fort Bragg at a Family Support Group, doing briefings, and helping "thousands of wives." There were lots of phone calls from around the country "Where is my son going?" and others of that sort. There was some attempts to manipulate the system to get a husband or son back, but it was blocked by the use of rear support officers who did not allow such manipulations. The wives in the local area helped some by writing distant relatives that their son, brother, etc., was all right. Thus, he began to see an increase of morale at home and a subsequent increase of morale on Grenada as the families were being taken care of. The families also organized a true flag-waving homecoming for the troops, and this was very morale-building. The word of the care of the families got to Grenada and was a real help to the troops there. He worked some with the media, but was not able to tell them anything because of a Headquarters-imposed news blackout. He also helped to plan the redeployment home, an important event. He felt it important that we know that any officer, regardless of his discipline, may be tasked to support a redeployment because so many of the officers had been already deployed overseas.

On the deployment itself, he did the forward work which, were for practical and research reasons, was done after things were quieting down. The medics

were starting to move back and move out, and he took a flight to the front with a med evac helicopter. He went into the field and interviewed some of the troops. He used the Marshall technique and found that it worked well in the middle of a platoon in the field "What happened to you guys?" They recounted their experiences, and were somewhat cathartic in doing so. He was able to identify one with problems, and then able to help him personally quietly later. He also found it helped to travel with the troops, and to experience what they were experiencing. In other words, his experience totally validated the earlier presentation by Dr. Gal of the Israeli techniques.

Finally, he found that coming back by air was a real "fast train," and that he personally had little chance to sort out his experiences before he was back at Fort Bragg. Thus, his own experience validated what we had already decided in the conference, that it was very useful to have the troops "decompressed" on their own terms before they returned to civilian life, where they would be scattered among their own families. Under this context, the Israelis had found that some troops had their initial combat fatigue breakdown at home while on leave. Having a built-in period for troops to readjust to the end of hostility would be very helpful.

THE U.S. HOSTAGES FROM IRAN

Presented by Major Tom Mareth of the Sheppard USAF Hospital.

In November 1979, the Iranian students overran the U.S. Embassy. In January 1981, 52 hostages were released and were transferred to Weisbaden for a brief medical checkover before they went home. Thus, the staff felt itself to be a part of history, and he was personally fascinated with their experience and his own interaction with them. He had limited control over the situation, and felt that the patients had to do a lot of the psychological work themselves. This is probably a healthy situation. The evaluation of the hostages was made under the control of the State Department, and it was very clear from the beginning that the State Department, not the U.S. Air Force, was in charge of them. Thus, diagnosing was minimized, and healthy intervention was maximized.

In preparation, they had several alerts to assure the staff availability as soon as the hostages were released. The staff was made sensitive to the needs of the press, and to the needs of the personal affairs office. In general, staff was told not to talk with the press, unless the PIO was there with them. There were a number of fantasies and misconceptions among the staff based on data which was prereleased, and from some family sources. (This was exactly the same fantasies and misconceptions reported in Bethesda as noted above.) He found at times it was hard to be mindful of the needs of the patients, when the staff had so many needs of their own that were being met in the feeling of "being a part of history." They cleared a medical ward, kept the patients together, which made it easier for group processing, and also for security. The hostages received a hero's welcome on their release, and this certainly was

a morale booster for them. On the ward, phone banks of secured telephone had been made available for their free use to call home and so on. This, also, was a real morale boost.

The hostages used the hospital library for their "group room." By their already strong group cohesion, they sometimes excluded the hospital personnel from their meetings. (This was a recurrent theme of this conference.) Hospital personnel must not feel hurt or neglected or unappreciated by such things, but must understand that at times the wounded, or the hostages, or the traumatized people simply need to be alone with each other to facilitate the healing process.

One of the most useful things that they provided the hostages was a State Department collage of video tapes of one years worth of evening news. Hostages were especially interested in what had been said about their experience, and gave them a chance to deal with this, and to clear up misconceptions prior to going home. (This has been useful in all the experiences reported in this conference, in that it gives the victims a chance to "act out" their anger, guilt, etc., before having to deal with loved ones.)

Patients were put in semi-private rooms which was reasonably okay, but tended to split the group up. All of the conferees agreed that it might be entirely appropriate to have large ward groupings if the patients found that they wanted the company. He had no idea who decided who roomed with whom in the semi-private rooms. They found a great number of communications coming in from all levels of headquarters, because everybody who had any authority to find out wanted to know everything that was going on. The constant need to brief people became quite a nuisance at times.

Some General Observations

- There was a need to talk among the hostages, to discharge their anxiety. They had been uncertain, undangered, and aware that the world focused on them and yet aware of their own helplessness and the helplessness of the world to win an early release for them. They were also aware that the world had managed to go along without them, and that they would have to simply catch up with the world. He found them to be physically okay, and emotionally quite resilient.
- Stressors included the variety of facilities that they had been kept in, some of which were very good and some of which were very poor. They had been kept both in groups and in some instances in solitary confinement. They had been kept by different groups who used different forms of harrassment, interrogation, etc. All had been kept in the dark and incommunicado at times. They had slept when and if their captors said they could, frequently sleeping bound and sitting up. They had been heavily bombarded with propaganda, and had heard the noise and shouting of anti-American crowds outside the Embassy. Some of the captors wore ski masks during the

captivity, and thus the people had no feedback from the captors as to what was happening. They had been interrogated at least twice by people who were not Iranian, and who used sophisticated techniques. They had been denounced as spies, threatened with execution, stripped, blindfolded, and dry fired upon. The captors had tried emotionally to break them down, and had been given vague and specific threats throughout their captivity. Some vague threats continued even after their release.

One might ask how the captives came out so healthy. Some are quite defensive, saying "They can't use against us what they don't know." Even if there was some feeling of non-attribution or non-fault invoked once they were released. In other words, they still didn't trust the hospital personnel or the State Department personnel. Some of them might have been "Retreated into health," and it was just too early to see what was going to happen. There is some evidence that it may take as long as five years for all the hostility and fear involved in such an experience to come out. Perhaps their adaptation had really been as good as it seemed to be. At any rate, the total group of hostages felt that they had done well, and each of them was accepted by all the others regardless of what they had done, statements made to the press, etc. Among the 52 hostages, he had felt that very few had rated any psychiatric diagnosis such as depression, neuroses, or evidence of adjustment disorders.

Dr. Mareth reviewed the elements which he felt explained why the prisoners had done so well.

- Group cohesion had been strong even with the various splits between captivity experiences. The captives tended to form new groups very easily.
- Lines of authority were strong, and the Department of State personnel lined themselves up rather as if they were military. No matter who they were, or how they came to be in the Embassy, they were all Americans imprisoned in Iran, and tended to band together for mutual support. They felt little guilt over any statements they made to the press, especially under duress, and found the group would always re-accept them. (This is exactly the same as reported by the prisoners of war from Hanoi.)
- He felt that the nine Marine Embassy guard clearly differed from the other captives. The marines sent an NCO to talk with them, and they instantly got haircuts, were back in their dress uniforms, and were obviously proud of being marines.
- The captives indicated a great deal of defiance, a very useful coping mechanism. They channelized their anger, tried to reassume as much control as possible for their own lives, and in general maintain their identities as individuals. They rationalized that they were not criminals, but that they had been illegally detained, and therefore any atrocity against them would be reckoned with in the future. This however eroded with time, as

the U.S. Government seemed to be powerless to get them out, and as world opinion seemed to have no effect over the student captors.

- They established some elements of control over their own life, sometimes this took the form of self-examination—"I'm going to be a better person in the future"—, exercise programs, getting in good weight and shape, etc. By doing something to control elements of their own life, the captives proved that they had some control over the situation.
- Dreams and fantasies worked, as they usually do. People recall the past, relived and remade decision for their life, looked at their assets and liabilities, and frequently preoccupied themselves with relatively mundane matters such as planning the perfect meal for the future. Others thought of ways to spend the back pay they were accumulating.
- The communication with the fellow captives was important, as has been shown in previous similar situations.
- Channelizing the aggression helped to some extent. At times there were angry at the U.S. Government, and because of this the Department of State arranged for President Carter to talk to the captives immediately after their release. This displaced anger from the Iranians showed up in other places as well.
- Some searched for meanings within the experience. This, also, is like the POWs in Hanoi. Some felt they were being punished, but this was not a prominent feeling. After the release, most felt that they had benefited in some way from the experience, although they certainly did not want to repeat it.

In summary, Dr. Mareth felt that any training program for civilians or military should include some acknowledgement of the above elements, as those things which will strengthen you and help you through a bad experience.

The final summary was given by Captain King, a Psychologist on the staff of the sponsoring agency.

Pre-deployment.

1. Provide support to the families, a realistic network, good communication with the families who are having to move out of an area, or protection for people who must stay in an area when the troops leave. Clearly, the protection is different for people being evacuated from a place like Germany, as opposed to supporting people in a place like Fort Bragg when their troops are deployed outward.

2. We must recognize that the factors involved in number 1 above have a definite and immediate impact on operational effectiveness. Troops in the

field are much more at ease if they know their families are carefully taken care of.

3. Training and organizational ground work must be clearly laid out within the military system.

a. Medical and non-medical personnel must be trained in dealing with grief down to the squad (squadron) level!

b. We need realistic simulation of stress casualties in our exercises, in realistic proportions: one out of every four casualties will be psychiatric.

c. We need to lay the groundwork with line officers prior to deployment! Therefore, we must go out with them on exercises, be able to relate to their operational duties and points of view, and try to generate as much support at the lower levels as we are given support at high levels. This among other things helps us to avoid getting in the situation where people who have psychiatric or psychological problems are charged under the UCMJ.

4. We need to understand all the viable therapeutic resources available to us.

a. We can augment medical personnel with chaplain personnel.

b. We can identify manpower requirements within units, and be sure that the people who fill those requirements are known by the line officers and senior NCOs. (This is exactly analogous to the flight surgeon in the Air Force, who is known throughout the squadron as "their" doctor.)

c. We need to get rid of the idea that "they've suffered enough" as an excuse given by some non-psychiatric physicians to keep psychiatric and psychological personnel from interviewing wounded, hostages, etc. This issue needs to be clarified before we get them in our hospitals, so as to avoid catching the patient in the middle of a staff battle. The resistance of non-psychologically oriented people to this sort of intervention is always amazing.

d. The medical support, resupply and communication network must be ready to go on deployment time, having been preplanned and in place. It is sometimes difficult to plan such a thing once the marching orders have been given.

e. We need to establish our own morale in the medics, with vertical and horizontal cohesion—and to maintain unit integrity by decreased personnel turnover.

f. Leaders need to train their troops appropriately, especially in support units. Pre-knowledge of psychological factors under combat conditions does a great deal to diminish combat fatigue and combat shock reaction.

g. Individual self-confidence among troops in their own training, equipment, resupply, leadership, overall disposition is essential to keep morale high.

h. People with combat experience need to share that experience with those people who have none.

i. Medical people need to get to know the units that they will be supporting.

Actual Deployment.

1. We are looking out for adverse symptoms, such as disobedience, drug and alcohol abuse, and turnout.

2. We have to learn to intervene within the unit, before individual GIs become "patients."

a. The people within the combat unit have to share their feelings with each other.

b. We have to keep our eye on command and control personnel, not only for signs of psychological problems but also for sleep deprivation.

c. Among all personnel, non-obvious stress factors may precipitate breakdowns in the field. To know your troops, you have to get out and travel with them.

d. We need to keep up-to-date command consultations, and status reports, so as to know how the troops are doing in the field. The Israelis had this down to a fine art.

Individual Intervention.

Using the various models of psychiatric intervention, such as brevity-immediacy-centrality-expectancy-proximity-simplicity or other similar systems, we have to use these within the unit as much as possible. We have to deal with fatigue, guilt and grief. Individual soldiers may do this within the unit, before people become identified as patients and are evacuated out.


Assistance in Operational Stress.

Keeping operational stress low includes discipline in sleep, water use, and food. It helps to recognize the dangers involved in isolation, uncertainty, nighttime deployments, etc., as a part of the combat's picture. We have to recognize the impact of the media on military events, and know how to deal with it.

Post-Deployment.

There is a value in the debriefing (SLA Marshall style) in the field environment, or as soon as possible immediately after the troops are pulled out of the field and before they are returned home. Mental health and mental hygiene people also need their own debriefings and support for the work that they do. Further, there must be a follow-up of operational stresses, including family outreach once the troop returns to his home. We need to assess the status of the unit on its return, in order to see when it will be combat-ready once more. Finally, each unit needs to prepare for the next time learning the lessons from the past. Almost all the sources of stress are amenable to control by the military, except those which are strictly imposed by the enemy.

As an attendee at this conference, I learned a number of new things to emphasize. I intend to incorporate some of these lessons in the teaching that I do in combat support and combat psychiatry, and would welcome any ideas from people who read these notes as to other places that we can use this information within the Air Force. The opportunity to attend such a conference is extremely useful to me professionally, and I urge that anyone who has an interest in these matters make it your business to attend one of these at Fort Sam Houston, or Walter Reed, or where ever they might be held.



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From: Brigadier P L Wickenden
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Your reference

Our reference

PSY 50/2

Date

17 July 1984

Dear Dr Mangelsdorff,

I write in reply to your letter of 10 June announcing the fourth workshop on combat stress to be held at San Antonio, Texas. I am sorry for my tardiness in replying to your letter but I have recently taken over this appointment and found myself in a welter of activities - you know how it goes sometimes!

I am happy to do what I can at the moment to help you with your workshop but I very much regret that we shall not be able to send a representative this year. I wonder if these workshops are held every year - when will you hold your 5th workshop? With a year's advance warning I think we may well be able to provide a delegate in the future.

You may be interested to know that we in Britain hold a Tri-Service Course in Military Psychiatry every autumn at the Royal Army Medical College, London. Call it what you will - Workshop, Conference, Seminar or Course, it all adds up to much the same thing. Our Course has replaced the UK elements of the biennial Anglo-American Psychiatric Symposium, but we always aim to attract international attenders and discuss matters of interest in military psychiatry. This year the Course is on 17/18 October but next year we will probably hold it in September. This year our programme includes presentations on specialised selection and training, hostages and terrorists, flying phobia, travel sickness and male anorexia nervosa. If you know of any colleague of yours who would like to join us please let me know and I will forward an invitation.

To return to your own Workshop: I must assume that you are familiar with the paper written by Herbert H Price ND CPT MC, Department of Psychiatry and Neurology, Dwight David Eisenhower Army Medical Centre, Fort Gordon, Georgia, entitled, "The Falklands: Rate of British Psychiatric Combat Casualties Compared to Recent American Wars". I enclose a copy of our Royal Army Medical Corps Journal which is devoted to the last of the old type of Anglo-American Military Psychiatry Symposium. I enclose for your interest and discussion, but not for publication or reference, a paper by Dr I G Drummond and Capt L S Clifton which discusses our experiences in the management of the delayed presentation of battle shock. The paper has some obvious faults which hinder its publication, but it does indicate a line of treatment we have

found to be successful. When reading any commentary on the Falklands War readers must always remember that it was a popular war from the start and a successful one to finish with. I suspect that recovery from battle neurosis (battleshock) may well be less satisfactory if soldiers have been involved in an unpopular and unrewarding war.

I also enclose copies of presentations made in various places by Surgeon Commander O'Connell, Surgeon Commander Scot-Brown, Colonel Abraham, Surgeon Lieutenant Ward and a newspaper article covering the meeting of the military section of the World Psychiatric Congress in Vienna in 1983.

With respect to the prevention of battleshock we, in Britain, are fortunate that military service is quite popular and we are able to set our selection standards quite high. It has been well established that although almost anyone is susceptible to battleshock that the prognosis for rapid recovery and early return to combat depends upon the strength of the personality. Morale in the British Armed Forces is high; drug taking has a very low incidence; British Servicemen prefer alcohol and yet we do not have the same incidence of problem drinkers as you seem to have in your Forces. These are the benefits of being able to reject 66% of all applicants and yet still maintain full manning!

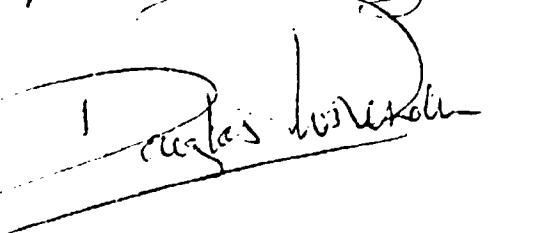
Prevention also depends upon education. We intend to see that, eventually, every officer and soldier down to junior NCO level has a good working knowledge of the phenomenology and first aid management of battleshock.

Training, of course, requires casualty simulation and this is, to my mind, a major field of effort that lies ahead of us. The US Forces have been practically interested in this for a long time and some of our officers have benefited by attending your exercises in Germany. We understand the importance of trained simulation personnel and of ensuring that simulators do not belong to the same units as those being trained. I'm not sure how fully we understand the principles behind simulation. It seems to me that simulation cards devised by your personnel are too concerned with symptomatology and too little concerned with circumstances. We believe that if a simulator understands why he became battleshocked and what his basic response pattern is that he can improvise as he goes along. I believe that battleshock simulators must be briefed also about the timing of their recovery and the pattern of their recovery: some recovering at first line, some at second line and some further back.

Regarding management, we are teaching that battleshock cases should not be medicated with psychotropic drugs in the field unless their behaviour renders them a danger to themselves or their comrades - in which case we advocate I.M. Haloperidol + Procyclidine. We hope that the majority of battleshock cases will be arrested at Regimental Aid Post level. The first psychiatric element will be found in the Div HQ area at the Div Battleshock Recovery Unit (BRU) where there should be bathing, feeding, resting and rekitting facilities as well as the opportunity of using, when necessary, drug assisted rest and some supportive group therapy based on the directed buddy aid principle, in

which casualties will help each other. We have also a separate evacuation chain for battleshock cases to ensure that they don't find their way into hospital. This separate chain goes right back to the ROZ in an effort to ensure that our casualties will be treated as soldiers rather than patients, until their condition makes it clear that they have indeed become patients. We, therefore, plan for four lines of management: (1) Unit RAE - non psychiatric, (2) Div BRU or its ROZ equivalent of ROZ BRU, (3) Corps BRU and (4) ROZ Field Gen Hosp (combat psychiatric treatment unit) for those who are ill or seriously disturbed and need definitive psychiatric treatment. All BRU's contain psychiatrically trained personnel in field psychiatry teams (FFT) of one psychiatrist plus six nurses each.

To summarise: I believe we know what battleshock is and we have a tactical doctrine for its management. What we now need to do is to educate, first our medics and then our officers and NCO's, and the problem of realistic simulation is the outstanding problem.

Yours sincerely


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Your reference

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Date 13 March 1985

Dear Major O'Brien,

Thank you for your letter of 20 February 1985. You may be interested in a copy of our instructions for the management of battleshock. This section on battleshock is No.16 in our Casualty Treatment Regimes - a pocket book issued to all field medical units. The copy I enclose is reduced in printing to pocket book size. You will note that, amongst other things, we talk about a Divisional Battleshock Rehabilitation Unit (Div BRU). This has been accepted in our Tactical Doctrine but does not yet exist in fact and there must remain some doubt as to whether it will ever exist. A proposed alternative is to subdivide our field psychiatric teams (FPTs) and send them to RMP/Flid Amb level trouble spots, as required, to aid the local resources in holding battleshock casualties at that level.

Yes, I am interested in your automated "Marksense" project and would much appreciate a view of your form and the results of the field tests.

We are rather shorthanded in UK Military Psychiatry but I expect that our programme planning will soon be under way and you will hear from me again.

Yours sincerely

Introduction

Most psychiatric casualties are sound soldiers temporarily overwhelmed by stress (battleshock).

Principles of Management

RESPIRE from the worst of the battle.

RETENTION at or as near as possible to the soldier's unit. The further back he is evacuated the greater the probability that he will require long term care (see Holding Policy below). Hence the need for:

Early RECOGNITION, despite frequent masking by coexisting trauma, climatic injury, conventional or NBC illness, or disciplinary infraction. Expect up to one-in-five of all casualties to be battleshock and expect a changing symptom picture.

RETURN if possible to his place in the unit, or some other duty with a chance to be welded into a new team, with the manifest expectation by all concerned that this will be the outcome.

ROLE as a soldier should not be abandoned in favour of that of a patient. This implies retention of personal weapon and kit (less ammunition initially if necessary).

REST initially, including sleep, without alcohol or medication.

RECOUNTING AND RELIVING recent battle experience with another person or group, perhaps from the soldier's unit, who understand.

REHABILITATION by useful work, ranging from attending to the needs of a patient, through shifting stores, to guard duty. Spontaneous activity of this sort may be the indicator that recovery is under way.

REASSURANCE to the soldier concerning his health, his military performance, his acceptability to his unit and news of his friends (killed, wounded, survived). The last two imply some contact with the unit.

Psychotropic medication is avoided as far as possible because it is liable to:

Impair the already limited performance of:

A battle stressed soldier who may need to fight.

A battleshock soldier who may need to respond to the battle situation with no one available to carry or care for him.

Impede recovery by:

Interfering with adjustment (eg to bereavement or stressful environment)

Disinhibiting an overwrought soldier

Interact with other substances taken which may also have psychological effects. eg. substances taken for

Chemical protection

Pain relief

Sea sickness, diarrhoea , etc

thus decreasing yet further military performance or psychological adjustment.

Holding and Evacuation Policy

RAP/B Echelon : 1 - 2 days

Divisional Battleshock Rehabilitation Unit (BRU) (located in DAA near unit B echelons supported by a Fd Amb) or

RCZ BRU : 1 - 2 days

Corps BRU : 1 - 7 days
(at CRG)

RCZ Hosp: for the remaining 20% who need long term care while in the theatre of operations.

Treatment

RAP, Fd Amb Section, DS, BRU
(exceptionally at Field Hosp)

Where sedation/tranquillisation is imperative and functional impairment for 3 hours is accepted:
Caps Temazepam 20 mg.

Caps Temazepam

<p>Where an injectable tranquilliser or anti-convulsant is required: Inj Lorazepam 4 mg</p> <p>Where control of behaviour by man-management or by soldier's own self control has been lost, and the behaviour poses a significant threat to the military task of personnel: Inj Haloperidol 20 mg.</p> <p>plus:</p> <p>Amps Procyclidine Hydrochloride BP 20 mg to alleviate acute side effects of haloperidol (eg muscular rigidity).</p> <p>Gen Hosp and Evac Hosp Psychiatric Units</p> <p>Where there is a prolonged depression: Caps Ami triptyline 50 mg three times daily.</p> <p>Where there is mania, schizophrenia or extreme anxiety: Tabs Haloperidol 5 mg three times daily.</p> <p>plus:</p> <p>Tabs Procyclidine 5 mg three times daily.</p>	<p>Amps Lorazepam</p> <p>Inj Haloperidol</p> <p>Amps Procyclidine Hydrochloride BP</p> <p>All above in Med Eqpt Set MO Med Eqpt Outfit Fd Complete Med Supply Set Chem Warfare</p> <p>Caps Amitriptyline</p> <p>Tabs Haloperidol</p> <p>Tabs Procyclidine</p>
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General Instructions for Battle Fatigue Role Players

In this exercise, you are to act the part of a normal, responsible service-person who has just had too many bad things happen in too short a time. You are to show the signs and symptoms of one of the many different forms of "Battle Fatigue". You will need to act and answer questions as if you were this person.

The Patient Packet for your case includes two paper forms which outline how you should act and what you should say: 1) The Recent Stress History form; 2) The Battle/Stress Fatigue (subtype) form. Each of these is like a "menu" with many different items to choose. You should play only those parts which have been highlighted with the felt marker.

At the top of the Recent Stress History form is background information about the soldier you are to play: what kind of unit he/she* belongs to and its unit name; his/her military occupational specialty and job responsibility. Memorize these, along with your part's personal name and rank which are on cardboard envelop's gum label. (*If, by mistake, you have gotten a packet that is made out for the opposite sex from yours, get the person who gave you the packet to change it to fit you now.)

On the Recent Stress History form is a very sketchy description of what kind of work pressure your character has been under, whether you have actually been in combat, and what bad events have happened. The hi-lighter may hint at problems in your unit or at home that are worrying you. Near the bottom of the form are physical stresses you have been exposed to, plus a summary of your habits regarding alcohol and drug use. All of these are things that can cause people to become temporarily over-loaded and need help to get back to doing their combat or combat supporting jobs.

Study the highlighted parts of the Recent Stress History form to get the basic ideas about your character and what he/she has been through. Remember, your character has been involved in a serious shooting war (in Korea). Use your imagination to fill in the details of your character and his/her experiences, but don't over do it. Keep it realistic and natural for a normal soldier in the situation(s) outlined on the menu.

Now look at the Battle/Stress Fatigue (subtype) form to find out what kind of signs and symptoms you are to pretend to have. The highlighted items under "General Status" tell whether you are able to walk or need to be carried on a litter, and how cooperative you are when first interviewed. If the form says your cooperation is poor (or you can't or won't talk), try to be uncooperative in the way the form says. Your other symptoms, outlined under the next section on the form, may also keep you from doing or answering everything your examiners want you to, even though you want to cooperate. Very few (very few!) battle-fatigued soldiers are violent and dangerous, but if your role is one of the few who are, be sure you just pretend. Do NOT get so carried away with your role-playing that you get yourself or someone else hurt. Try to act out the highlighted symptoms and answer any questions about them as if you were really feeling and having them. You have to use your imagination here, too, but keep to the part and be as natural and realistic as you can be. If you have any questions about what the two menu forms want y u to do, ask the person who gave you the packets NOW.

(See the reverse side to find out how fast to improve with treatment)

Battle Fatigue is a temporary condition which naturally gets better if the soldier is reassured that he/she is not sick or a coward, but is just having a common reaction to severe stress. A brief rest from extreme danger or pressure, a chance to catch up on water, food and sleep, to clean up, (and, if possible to talk about what happened), puts things back into perspective and restores the soldier's self confidence. When not resting and replenishing, it is best that the battle-fatigued soldier be kept busy doing useful jobs and in active recreation. Being left alone, harassed, called a "psycho" or treated like a sick patient, on the other hand, does not make battle fatigue get better and may make it get worse.

The Battle/Stress Fatigue form gives you a clue about how soon you should "get better" if the medical and mental health people who interview and treat you do and say the "right things" as described above:

(1) If your case's Battle Fatigue is highlighted as "Mild", get better in several hours and be ready to go back to duty at your unit.

(2) If your Battle Fatigue is highlighted as "Moderate" or "Severe", it will take one, two or three days. You will "recycle" as a casualty after the first day while the Patient Packet stays to get the rest of the treatment. Don't begin to get better too fast if your case is "Moderate" or "Severe".

Have fun (but play it straight and fair).

PATIENT CLASS # _____

CASE I.D.(#) _____

- RECENT STRESS HISTORY: 01. Referral Source: a) Self b) Command c) Medical d) Evacuation Channels
02. Source of info: a) self b) unit c) written notes d) probably complete e) incomplete f) unreliable?
03. Ethnic: a) Wh b) Blk c) Hisp d) Asian e) Am Ind 04. a) male b) female 05. Unit # _____
06. a) Combat Arms b) Combat Service Support c) AMEDD 07. a) Active component b) Reserve/NG c) TDA/IRR filler
08. Position: a) jr. enlisted b) specialist c) sec/crew/sqd/plt leader d) company/bn ldr or staff e) higher
09. MOS/Job Title _____ 10. Recent degree of responsibility: a) little b) some c) much d) extreme
- _____ 11. Recent mission demand: a) light b) medium c) heavy d) extreme
- _____ 12. Last rest period longer than 4 hrs occurred (1)(2)(3)(4)(5+) days ago
13. Actually under attack? a) yes b) no, but was in some immediate danger c) no immediate danger
14. Recent casualties in unit? a) heavy b) medium c) light d) none
15. SPECIFIC EVENTS? a) almost killed b) buddy Wounded/Missing/Killed c) leader W/M/K d) most/all team W/M/K
16. a) Saw b) Contributed to c) horrible/disgusting scene d) bad error/oversight e) improper activity _____
- f) harm to civilians, women, children g) harm to friendly troops(s) h) atrocity _____
17. Caused by: a) artillery b) aircraft c) armor d) anti-air/armor e) small arms f) mines g) booby traps
- h) flame/napalm i) laser j) nuclear k) chemical l) ambush m) guerrilla n) friendly unit o) accident
18. Problem in unit with a) peers b) leader c) subordinate(s) d) equipment e) resupply, repair f) lost job
- g) new job/responsibility h) being new in unit i) having new or poor leader j) expected relief
19. Personal worries: a) letter from/about: b) girl(boy)friend c) spouse d) parent(s) e) bros/sis f) baby/children
- g) sick/hurt h) pregnant i) just married/born j) died k) in combat unit/theater l) civ job m) legal trouble
- n) debts o) angry p) unfaithful/broke-up q) home/car/stereo r) theft s) no mail
20. Lost confidence in: a) training and skills b) own survival c) ultimate victory d) justness of cause
21. Total combat experience (under attack): a) none ever b) minutes c) hours d) days e) weeks/mos f) prior tour
- RECENT PHYSIOLOGIC STRESS: 22. Minor illness: a) diarrhea b) fever c) wound d) skin e) other
23. Sleep loss: a) some b) severe c) extreme 24. Blast: a) some b) much 25. Concussion: a) yes b) maybe
26. Physical Work: a) little b) much c) extreme 27. Phys. Fitness: a) super b) poor
28. Much: a) confinement b) noise c) vibration d) heat e) cold f) wet g) fumes h) MOPP
29. Too little: a) water b) food c) hygiene 30. Low dose: a) radiation b) nerve agent
- DRUG USE: Alcohol: 31. Usual: 0, 1-2, 3-4, 5+/day 32. Past 24 hrs: 0, 1-2, 3-4, 5+ 33. Alcoholic history
34. Stimulants: a) caffeine b) nicotine c) meds 35. Marijuana: a) past b) recent 36. Other drugs: _____
37. UNIT WANTS SOLDIER BACK? a) "Worth the try" b) "If guaranteed OK" c) Very doubtful d) No! e) unknown

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #310, 311, 312

Case Sequence # _____

DX: BATTLE/STRESS FATIGUE, SIMPLE TYPE:

(a) Mild, (b) Moderate

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (below)
- C Orientation: (2) Knows (a) time (b) place (c) context (d) own identity
(3) except doesn't know (a) time of day (b) day of week (c) day of month
(e) what kind of place this is (4) and says that doesn't know (5) but remembers when told

02 SYMPTOMS: (1) are still going on

- A Appearance: (1) Tired, (2) "Thousand Yard Stare"*, i.e., pupils large, eyes wide open and don't seem to focus; expression gaunt but blank, because it takes deliberate effort to move facial muscles, (3) Moves with slow shuffle.
- B Behavior: (1) Poor memory for details, (2) Tends to reverse numbers, misread maps, (3) Inattentive, (4) Takes no initiative, (5) Is difficult to get moving, (6) Tends to continue mechanically doing simple physical tasks, (7) Indecisive, (8) Indifferent to own safety, (9) Indifferent to others, to mission, (10) "Asleep on feet" or sitting (but can be aroused with effort), (11) Almost completely passive (12) "exhausted", apathetic.
- C Mild anxiety symptoms (1) Fine tremor (2) Startle response to loud noise or sudden movement, (but not "hyperalert", as it takes a major stimulus to get any response),
- D Benign wish-fulfilling misperceptions of common objects while half asleep: (1) tree = coke machine or pay phone, (2) cow = USO girl, (3) 2 1/2 truck = Greyhound bus, (4) shed = ice cream truck, (5) building = MacDonald's restaurant/hallucinations of the sleep deprived (see Class 322).

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began (1) while in action (5) gradually over (7) hours (8) days
- C Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO:

- A Psychological stress: (1) one bad event (2) several bad events (3) long term work demands (4) other stress _____
- B Physical cause: (1) physical overwork (6) chemical exposure (9) microwave radiation (10) nuclear radiation (11) drug use (12) alcohol use
- C Doesn't have any idea

07 "NEGATIVE FINDINGS" (ALL CASES): Soldier does not show significant depressive symptoms. Not delusional or "crazy".

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #313, 314, 315

Case Sequence # _____

DX: BATTLE/STRESS FATIGUE, WITH DEPRESSED MOOD

(a) Mild, (b) Moderate, (c) Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted (a) under guard (3) In restraints (4) Confined to litter
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (d) defensive, cautious (e) trying to please, get support, manipulate
- C Orientation: (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (c) day of month (f) where this is (, and says that doesn't know (6) but remembers when told
- 02 SYMPTOMS: (1) are still going on (3) recur on and off
- A Affect: (1) sad, depressed (or anguished), face, (2) sighs, (3) slow, hesitant speech or, (4) "flood of feeling" (5) "weary" posture (6) withdraws from others, (7) moves slowly, or, (8) restless, pacing, (9) hand-wringing.
- B Grief: (1) crying for lost friend or other loss, (2) feels all alone, (3) feels "friend had so much to live for", (4) feels should have died along with or instead of friend, team, (5) Inconsolable by others in unit, making them depressed.
- C Inadequacy: (1) feels incompetent to perform duty, (2) let others down, (3) dependent, clinging, "don't leave me" (4) pessimistic (a) believes Army career is ruined (b) believes war is lost (7) "leave me; help others who deserve it".
- D Guilt: (1) Feels responsible for bad event, (a) although knows was not truly responsible, (a) and truly was to blame, (4) altho responsibility is unclear, (2) Believes "all my fault", (3) Feels that behaved shamefully (a) showed cowardice, (4) Feels that has done things that were bad, (a) "Will never feel right again", (b) committed terrible sin, (c) deserves punishment (d) even death.
- E Intrusive Ideas: (1) can't get horrible scene (sounds) out of mind, (2) ruminating on bad news from home (b) Has dreams which replay terrifying or guilty event.
- F Thoughts of Death: (1) might be a relief (2) What point is there on going on? (3) Could be easy (a) just don't take cover, (4) fleeting suicidal ideas, (5) "Would never do it because of religion/family/friends" (6) suicidal ruminations (7) active suicide plans
- G Physical Signs: (1) poor appetite, (2) trouble falling asleep, (3) no appetite, (4) can't stay asleep, (5) little pleasure, interest in anything, (6) Can't concentrate.
- H Symptoms of mild anxiety: (1) Fine tremor (2) Startle response to loud noise or sudden movement, but not hyperalert.

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks

- C Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO: A. Psychological stress:

- (1) one bad event (2) several bad events (3) long term work demands (4) other stress _____ (5) doesn't know.

- 05 IMPORTANT "NON-FINDINGS" (ALL CASES): Not frankly delusional or "crazy"; no hallucinations. Not deliberately uncooperative, although slow speech, tendency to withdraw, may make communication difficult.

(Clusters of symptoms vary with severity and should relate to Stress History)

PATIENT CLASS #316, 317, 318

CASE SEQUENCE # _____

DX: BATTLE STRESS FATIGUE, WITH ANXIETY

(a) Mild, (b) Moderate, (c) Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (d) defensive, cautious (e) trying to please, get support, manipulate (g) easily confused, unreliable
- C Orientation: (1) Can't be determined (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (f) where this is (4) and says that doesn't know (6) but remembers when told
- 02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off
 - A Hypervigilance: (1) Alert, on lookout for danger (2) notices every sound, movement (3) flinches at sudden sounds (4) ducks or dives for cover at every sudden sound.
 - B Tension: (1) fine tremor of hands (2) trembling knees (3) trembling all over (4) tension headache, stiff neck (5) gross shaking of arms, body (6) unable to do job (7) cowering, huddling, freezing repeatedly while under attack (8) cowering, huddling while not immediately threatened
 - C Anxious, fearful thoughts: (1) of death (2) of mutilating wound (3) of pain (4) of failing at job (5) of making a bad mistake (6) of being incapacitated by fear (7) of being thought a coward (8) of being left behind alone (9) of being put in new unit (10) Other:
 - D Phobic for particular situation: (1) helicopter, aircraft (2) tank, APC (3) artillery (4) mines, booby traps (5) chemical protective gear (6) perimeter or guard duty (7) closed spaces (8) other
 - E Bodily Complaints: (1) pounding heart (2) sweating palms, feet, face (3) shortness of breath (may give hyperventilation) (4) pain in chest (5) trouble swallowing (6) upset stomach (7) diarrhea (8) frequent urination (9) incontinence at instant of extreme fear.
 - F Sleep disturbance: (1) trouble falling asleep (2) awakened by terror dreams which (a) replay real close calls (b) involve being (c) chased, hunted (d) killed (e) gassed (3) tries not to fall asleep because dreams so bad.
 - G Degree of Disability: (1) still able to do job (2) impaired, marginal performance (3) unable to do primary job, but can do something (4) non-functional.
 - H Apologetic about behavior (1) "I don't know what's wrong with me" (2) "Can't take it" (3) "My buddies must feel I'm a weakling" (4) "I must be a coward" (5) "I've let my unit down"
- I Dependent, (1) "clinging" (2) "Please. Don't send me back".

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks
- B Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO:

- A Psychological stress: (1) one bad event (2) several bad events (3) long term work demands (4) other stress _____
- B Physical cause: (1) drug use (12) alcohol use (13) _____
- C Doesn't have any idea

07 IMPORTANT "NON- FINDINGS" (ALL CASES): Not "crazy". No hallucinations, delusions. No deliberately disruptive behavior.

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #322, 323, 324

Case Sequence # _____

DX: BATTLE/STRESS FATIGUE, WITH DISTURBED PERCEPTION

(a) Mild (b) Moderate (c) Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted (a) under guard (3) In restraints (4) Confined to litter
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (c) belligerent, threatening (d) defensive, cautious (e) trying to please, get support, manipulate (g) easily confused, unreliable
- C Orientation: (1) Can't be determined (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (h) what kind of place this is (4) and says that doesn't know (6) but remembers when told

02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off

- A Benign, wish-fulfilling illusions, i.e. misperceptions of common objects while half asleep: (1) tree = coke machine or pay phone, (2) cow = USO girl, (3) 2 1/2 truck = Greyhound bus, (4) shed = ice cream truck, (5) building = MacDonald's restaurant, (6) rubber raft = fancy motor boat, (7) other:
- B Neutral hallucinations due to sleep loss: (1) vivid scene of beach in moonlight (far from sea), (2) castle or mansion in swamp, (3) little white dogs moving among white rocks, (4) animals or snakes crossing empty road, (5) other:
- C Culturally acceptable religious experiences or other "vision" under stress: (1) devout Catholic (a) Hispanic (b) from rural background (c) saw (d) talked to by (e) Virgin Mary (f) Saint _____ (2) Puerto Rican is counselled and given moral support by dead male relative, (3) Fundamentalist Protestant has (a) "Born Again" experience (b) saw Jesus Christ (d) blinding light (4) Heard (5) Saw (a) mother (b) spouse (c) say comforting words, (6) Heard voice (God?) say "You are going to live." (7) other:
- D Frightening misperceptions/hallucinations: (1) Heard (2) Saw (a) enemy moving, (b) battle sounds, (c) air attack, (3) Heard voice say, "You are going to die" (5) misperceived jeep as bull charging through bivouac, (6) other:
- E "Post Traumatic Stress Disorder Flashbacks" (1) "relived" for brief period a traumatic event: (a) close call, (b) death of friend, (c) other bad event, (2) Flashback was triggered by (a) a dream (5) similar sights/sounds/smells.
- F Associated insight: (1) good, because even at time knew not to act inappropriately (2) only retrospective insight (3) insists on validity of perception, but does not endanger military role (4) no insight, insists in acting on the perceptions in ways which impair military role.
- G Reaction to experience: (1) puzzled, (b) reassured, (c) worried about opinion of other soldiers, leader, (4) worried about "going crazy" (5) upset, angry that others don't concur or understand.

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks
- B Episodes lasted for (1) one or two (2) three to five (3) 10 to 20 (4) 30 to 40 (5) 50 to 60 (6) seconds (7) minutes
- C Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO:

- 07 IMPORTANT "NON-FINDINGS" (ALL CASES): Soldier is not frankly "crazy"

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #319, 320, 321

Case Sequence # _____

DX: BATTLE/STRESS FATIGUE, WITH DISTURBED BEHAVIOR

(a) Mild, (b) Moderate, (c) Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted (a) under guard (3) In restraints (4) Confined to litter (a) "unconscious"
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (c) belligerent, threatening (d) defensive, cautious (e) trying to please, get support, manipulate (f) ignores examiner (g) easily confused, unreliable
- C Orientation: (1) Can't be determined (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (date) (f) where this is (h) what kind of place this is (4) and says that doesn't know (6) but remembers when told (7) and forgets when told

02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off

- A Strange behavior (1) "Hysterical" (a) crying, (b) laughing (c) screaming agitation, (2) Head banging (with hand, object, or against wall, tree, etc.), (3) Hypertalkativeness, hyperactivity (4) "Acted crazy" (a) acting & clucking like a chicken (b) crawling on all fours barking like a dog. (5) In state of "total withdrawal", not responding to anything: (a) stiff as a board (b) knees bent up to chest (c) and resists being straightened out (d) jaw clenched (e) legs and arms shaking and kicking now and then. (6) Cowering, huddling, hiding (?) Refused order to move
- B Endangering behavior: (1) Loud talking threatened to give away position, (2) fired weapon indiscriminately or when shouldn't have, (3) gross carelessness or negligence, (4) Verbal tirade, inappropriate action towards enemy, (a) "I can't stand it anymore!" (b) "I'm coming to get you," (5) (a) Makes (b) Orders (c) an irrational, authorized attack (d) other reckless action (e) panic run while under attack (6) Had to be subdued.
- C Threatening behavior:* (1) Irritable, argumentative (a) towards people from other units (b) towards others in own unit. (c) resulting in fist fights. (2) Withdrew by self, threatens anyone who approaches with weapon. (3) Used a (a) club (b) knife (c) gun (d) grenade or mine (e) vehicle (f) tank (4) to threaten (5) to attack (6) to kill (7) (a) members of other units (b) noncombatants (c) own unit member (d) unit leader (e) POWs (8) Accused of (a) rape (b) atrocity. (c) UCMJ or Rules of Engagement violation requiring disciplinary proceedings.
- D Insight?: (1) Good, feels apologetic (2) Poor; defiant self-justification (3) None (4) Denies incident.

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks
- B Episode lasted for (1) one or two (2) three to five (3) 10 to 20 (4) 30 to 40 (5) 50 to 60 (6) seconds (7) minutes
- C Prior occurrences? (1) no (2) yes, but not so bad (3) yes
- 04 SOLDIER THINKS THIS CONDITION IS DUE TO: A Psychological stress: (2) bad events (3) long term work demands (4) other stress
B Physical cause: (2) fall or blow (4) blast or concussion (3) chemical exposure (4) chemical weapon (8) drug use (9) alcohol use
D Doesn't have any idea (1) doesn't care (2) won't say

(Clusters of symptoms vary with severity and should relate to Stress History)

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #325, 326, 327

Case Sequence # _____

DX: BATTLE/STRESS FATIGUE, WITH MEMORY LOSS

(a) Mild, (b) Moderate, (c) Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted (a) under guard (3) In restraints (4) Confined to litter
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (c) belligerent, threatening (d) defensive, cautious (e) trying to please, get support, manipulate (f) ignores examiner (g) easily confused, unreliable
- C Orientation: (1) Can't be determined (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (date) (d) month (e) year (f) where this is (g) what country this is (h) what kind of place this is (i) own name (j) own rank (k) own unit (l) that is in the military (4) and says that doesn't know (5) and gives false answers (6) but remembers when told (7) and forgets when told

02 SYMPTOMS: (1) are still going on (3) recur on and off

- A Excessive forgetfulness (more than explained by fatigue alone, and without other signs of severe sleep loss or stress) (1) of orders (2) of task skills.
- B Loss of memory for a period of (1) minutes (2) hours (3) days (4) weeks (5) months (6) years (7) continuing up to the present (8) during which some presumably traumatic or emotionally conflicted events occurred
- C Presents with a superficial, different identity (1) with memory loss of true identity
- D Left or ran from own unit and was found somewhere else with memory loss for own true identity (a "fugue state").
- E Total amnesia (1) doesn't know anything about anything (2) forgets from minute to minute
- F "Shellshocked": (1) persistent, zombie-like trance state (in a daze) (2) goes where led (3) complies passively with very simple verbal instructions

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks
- C Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO:

- (a) Psychological stress: (1) one bad event (2) several bad events (3) long term work demands (4) other stress _____
- (b) Physical injury: (2) fall or blow (4) blast or concussion
- (c) Physical disease: (4) chemical weapon (6) microwave radiation (8) drug use (9) alcohol use
- (d) Doesn't know but worries about it (1) doesn't care (2) doesn't say

05 NEGATIVE FINDINGS: No outright "crazy" or disruptive behavior

(Clusters of symptoms vary with severity and should relate to Stress History;

Patient Class # . . .

Case Sequence # _____

DX: BATTLE/STRESS FATIGUE,

(a) Mild, (b) Moderate (C) Severe

10 SOURCE OF INFORMATION: (1) Field Medical Card (2) Soldier him/herself
(3) Soldier's escort (4) Written note from unit (5) Medical record
(6) other: _____

11 DOES UNIT WANT SOLDIER BACK? (1) Unknown (2) Yes (a) a good soldier
(b) worth the try (b) if guaranteed OK (3) Doubtful (4) No (5) Never!

12 EARLIER TREATMENT? (1) None

A Medication: (1) Valium (2) Thorazine (3) Atropine/2PAM (4) Morphine (5) ?
(6) (specify) _____

11 EXAMINATION FINDINGS:

A Symptoms are as described and (1) do not appear under voluntary control
(2) with no evidence of faking

B No evidence for serious physical cause on (1) quick evaluation, triage
(2) general physical exam (3) X-ray (4) special physical exam (5) special
lab exam (6) (specify) _____

C Positive evidence for non-physical cause: Symptoms (1) are inconsistent
with anatomy &/or physiology (2) change inconsistently (3) are much
improved (a) during sleep (b) immediately after soldier is awakened from
sleep (c) by hypnosis

D Patient has been examined at an earlier medical echelon by (1) Medic -
91A/91B/91C (2) Physicians Assistant (3) General Medical Officer
(4) Internist or General Surgeon (5) Orthopedic Surgeon (6) Nurse
Practitioner (7) Ophthalmologist (8) Ear/Nose/Throat Specialist
(9) Audiologist (10) Behavioral Science Spec - 91G (11) Social Work
Officer (12) Psychologist (12) Psychiatrist (14) Psychiatric Nurse
(15) Occupational Therapy Officer (16) OT Tech

E Patient has just been evaluated at this medical facility by (You circle
the type of specialist in para (d) and the findings or non-findings in
paras (a),(b) and (c)).

11 NOTES:

15 GUIDELINES FOR RESPONSE TO TREATMENT: (1) To be determined

A On medical ward as patient (assumes optimal management):

- (1) Rapid improvement in minutes to hours
- (2) Much improved in 12-24 hours after 1 night sleep
- (3) Steady improvement over 36-48 hrs (2 nights)
- (4) Gradual improvement over 56-72 hrs (3 nights)
- (5) Not improving (6) Getting worse

B In clearing company setting, with structured military program

- (1) Rapid improvement in minutes to hours
- (2) Much improved in 12-24 hours after 1 night sleep
- (3) Steady improvement over 36-48 hrs (2 nights)
- (4) Gradual improvement over 56-72 hrs (3 nights)
- (5) Not improving (6) Getting worse

C Attitude towards return to duty after treatment: (1) if is to own
original unit (2) if is to a new unit (3) Ready (4) Willing but worried
(5) Needs much reassurance, encouragement (6) Very reluctant (7) Can't do

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #328, 329, 330

Case Sequence # _____

DX: BATTLE/STRESS FATIGUE, WITH DISTURBED VISION
(a) Mild, (b) Moderate, (c) Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted (4) Confined to litter
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (d) defensive, cautious (e) trying to please, get support, manipulate
- C Orientation: (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (f) where this is (h) what kind of place this is (4) and says that doesn't know (6) but remembers when told

02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off

- A Eye discomfort: (1) itching, (2) irritation, (3) pain.
- B Dark adaptation: (1) bothered by light, glare, (2) dim vision (everything faded). poor dark vision, (4) persistent after image.
- C Acuity (sharpness, focus): (1) mildly blurred, (2) very blurred.
- D Double vision (sees overlapping images).
- E Visual field changes: (1) tunnel vision (central OK, peripheral lost), (2) peripheral vision OK, central lost, (3) other:
- F Complete loss of vision, can't see anything.
- G In (1) right eye (2) Left eye (3) Both eyes.

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks
- B Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO:

- A Psychological stress: (1) one bad event (2) several bad events (3) long term work demands (4) other stress
- B Physical cause: (1) physical overwork (2) fall or blow (3) blast or concussion (4) natural infection (5) biological warfare agent (6) chemical exposure (7) chemical weapon (8) laser (9) microwave radiation (10) nuclear radiation (11) drug use (12) alcohol use
- C Doesn't have any idea (1) doesn't care (2) doesn't communicate

05 NEGATIVE FINDINGS:

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #331, 332, 333

Case Sequence _____

DX: BATTLE/STRESS FATIGUE, WITH AUDITORY DISTURBANCE
(a) Mild, (b) Moderate, (c) Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (2) Escorted
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (d) defensive, cautious (e) trying to please, get support, manipulate
- C Orientation: (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (f) where this is (h) what kind of place this is (4) and says that doesn't know (6) but remembers when told (8 in writing

02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off

- A Decreased hearing: (1) everything sounds distant (2) like I had earplugs
- B Total hearing loss, deafness. (1) can't hear anything (2) except...
- C (Tinnitus): I hear a (1) ringing sound (2) buzzing (3) roaring sound (4) banging noise (5) constant shriek (6) machinery sound (7) sound like a tank's tracks
- D Pain, (1) deep
- E In (1) right ear (2) left ear (3) Both ears.
- F (Vertigo) (1) I feel (2) as if the world is spinning around (3) dizzy (4) like throwing up
- G When I close my eyes, I tend to fall: (1) to the right, (2) to the left (3) backwards (forwards)

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks
- B Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO:

- A Psychological stress: (1) one bad event (2) several bad events (3) long term work demands (4) other stress _____
- B Physical cause: (1) physical overwork (2) fall or blow (3) blast or concussion (4) natural infection (5) biological warfare agent (6) chemical exposure (7) chemical weapon (8) laser (9) microwave radiation (10) nuclear radiation (11) drug use (12) alcohol use
- C Doesn't have any idea (1) doesn't care (2) doesn't communicate

05 NEGATIVE FINDINGS:

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #334, 335, 336

Case Sequence # _____

DX: BATTLE/STRESS FATIGUE, WITH SENSORY and/or MOTOR DISTURBANCE

(a) Mild, (b) Moderate,

(c) Severe

01 GENERAL STATUS:

A Mobility: (1) Able to walk (a) with assistance (2) Escorted (4) Confined to litter

B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (d) defensive, cautious (e) trying to please, get support, manipulate

C Orientation: (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (4) and says that doesn't know (5) and gives false answers (6) but remembers when told

02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off

A Problems with sensation: Feeling is (1) decreased (2) completely gone (3) increased and unpleasant (4) painfully unpleasant (5) even when nothing is touching

B for the sense of (1) touch (2) temperature (3) pain (pinprick, pinch) (4) position (a) I can't tell where my fingers (c) hands (c) feet (d) are unless I look at them (5) vibration (6) any kind of feeling

C (where) (1) in (2) all over the (a) top of (b) front of (c) back of (d) my (3) right (a) and (4) left (5) Arm (a) thumb (b) fingers (c) hand (d) up to the (e) wrist (f) forearm (g) elbow (h) upper arm (i) shoulder (6) Leg (a) toes (b) foot (c) up to the (d) ankle (e) lower leg (f) knee (g) thigh (h) hip. (7) Body (a) below the waist (b) low back (c) rear end (d) crotch (e) abdomen, stomach (f) chest (g) breast (h) upper back

(8) Head (a) neck (b) chin (c) jaw (d) face (e) mouth (f) nose (g) scalp.
D Problems with muscle movement: (1) weakness (2) paralysis (3) Can't seem to (a) move (b) control the movement of (4) Stiffness (5) Spasm (a) painful contraction of (6) twitch or tic

E (where) (1) in (d) my (3) right (a) and (4) left (5) Arm (a) thumb (b) fingers (c) hand (d) wrist (e) forearm (f) elbow (g) upper arm (h) shoulder (6) Leg (a) toes (b) foot (c) ankle (c) lower leg (d) knee (e) thigh (f) hip. (7) Body (a) below the waist (b) low back (e) abdomen, stomach (f) chest (h) back (8) Head (a) neck (c) jaw (d) mouth

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

A Symptoms began (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks

B Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO:

A Psychological stress: (1) one bad event (2) several bad events (3) long term work demands (4) other stress _____

B Physical cause: (1) physical overwork (2) fall or blow (3) blast or concussion (5) biological warfare agent (6) chemical exposure (7) chemical weapon (8) laser (9) microwave radiation (10) nuclear radiation

C Doesn't have any idea (1) doesn't care (2) doesn't communicate

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #340, 341, 342

Class Sequence # _____

DX: BATTLE/STRESS FATIGUE, WITH DISTURBED SPEECH

(c) Severe

(a) Mild, (b) Moderate,

01 GENERAL STATUS:

A Mobility: (1) Able to walk (2) Escorted

B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor
(3) Attitude is (a) sullen (b) hostile, angry (d) defensive, cautious
(e) trying to please, get support, manipulate

C Orientation: (1) Can't be determined (2) knows (a) time (b) place
(c) context (d) own identity (3) except doesn't know (a) time of day
(b) day of week (c) day of month (f) where this is (h) what kind of place
this is 4) and says that doesn't know (6) but remembers when told

02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off

(a) Can only whisper.

(b) Stutters: (1) moderately (2) severely.

(c) Can't speak, is mute (but moves lips).

(d) Can't write.

(e) Can't understand speech.

(f) Can't read.

(g) Speaks "word salad," gibberish, but is oriented, cooperative and
appropriately upset.

(h) Unable to perform combat duty because of symptom.

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

A Symptoms began (1) while in action (2) during lull (3) after sleep (4)
suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks

B Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO:

A Psychological stress: (1) one bad event (2) several bad events (3) long
term work demands (4) other stress _____

B Physical cause: (1) physical overwork (2) fall or blow (3) blast or
concussion (4) natural infection (5) biological warfare agent
(6) chemical exposure (7) chemical weapon (8) laser (9) microwave
radiation (10) nuclear radiation (11) drug use (12) alcohol use

C Doesn't have any idea (1) doesn't care (2) doesn't communicate

05 NEGATIVE FINDINGS:

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #301

Case Sequence # _____

DX: PSYCHOTIC EPISODE (BRIEF REACTIVE PSYCHOSIS): Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted (a) under guard (3) In restraints (4) Confined to litter
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (c) belligerent, threatening (d) defensive, cautious (e) trying to please, get support, manipulate (f) ignores examiner (g) easily confused, unreliable
- C Orientation: (1) Can't be determined (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (date) (f) where this is (g) what country this is (h) what kind of place this is (i) own name (j) own rank (k) own unit (l) that is in the military (4) and says that doesn't know (5) and gives false answers (6) but remembers when told (7) and forgets when told

02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off

- A Paranoid features: (1) thinks everyone is thinking or talking about him/her (2) feels that his/her thoughts are being "broadcasted" and heard by others (3) feels that can hear other peoples' thoughts (4) feels own mind is being controlled by some outside agency (a) the KGB (b) the CIA (c) "radio control" (5) Feels that is being persecuted (5) Realizes there is a plot or conspiracy (a) "All the pieces fit together" (6) Believes he/she is God's messenger (a) has a special mission (6) Hearing a "voice" or "voices" (a) talking about him/her (b) calling bad names like (c) traitor (d) Communist (e) "gay" (f) telling to do bad things.
- B Catatonic features: (1) doesn't move at all (2) but stubbornly resists being moved (3) but if is moved, stays exactly as put (4) assumes strange postures (5) bizarre, frantic hyperactivity.
- C Disorganized features: (1) silly, inappropriate emotional expression, (a) giggling (b) silly smiling (2) incoherent speech (3) illogical, changing delusions (4) illogical, bizarre ideas (a) skips from idea to idea with no connection (5) uses new, strange, "made-up" words.
- D Manic features: (1) hyperactive moving around (2) constantly talking at a rapid rate (3) thoughts go off on tangents (4) butts in on others, demands attention (5) sarcastic, irritable (6) poor insight, judgment (7) doesn't sleep or feel sleepy (8) makes sexual remarks and propositions (9) exaggerated self-esteem (10) says has a great idea or invention (a) which will win the war (b) save the world (c) make him/her rich and famous
- F Psychotic Depressive features: (1) feels utterly worthless (2) extreme guilt (3) "My insides are being eaten away by worms." (4) "I'm rotting inside" (5) "This is the End of the World" (6) Hears punishing, judging "voices" (7) Preoccupied with death, deserves to die (8) Broods about suicide (a) suicide plans (b) but feels too incompetent to attempt (c) "So bad that don't even deserve to be out of misery" (9) Homicidal ideas along with suicidal (a) feels must kill someone or others first). (10) No appetite (11) Can't sleep

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #308, 309

Case Sequence # _____

DX: DRUG DEPENDENCE/MISUSE, ATROPINE-type
(a) Mild, (b) Moderate, (c) Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted (a) under guard (3) In restraints (4) Confined to litter (a) unconscious
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (c) belligerent, threatening (d) defensive, cautious (e) trying to please, get support, manipulate (f) ignores examiner (g) easily confused, unreliable
- C Orientation: (1) Can't be determined (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (date) (d) month (e) year (f) where this is (g) what country this is (h) what kind of place this is (i) own name (j) own rank (k) own unit (l) that is in the military (4) and says that doesn't know (5) and gives false answers (6) but remembers when told (7) and forgets when told

02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off

- A Physical complaints (1) bothered by bright light (2) dry mouth, thirst (3) urinary retention (4) giddy, light-headed (5) Hot
- B Mental symptoms: (1) confusion, difficulty focusing attention (2) problem with remembering new things (3) "High" (4) visual hallucinations, keeps seeing (a) rats (b) spiders (c) snakes (d) fire, flames (e) enemy soldiers (f) tanks in the distance (5) Olfactory (smell) hallucinations of (a) smoke (b) oil or gasoline (c) rotten things (6) Tactile (touch) hallucinations of (a) bugs (b) "something" (c) crawling on (b) under skin (7) Agitation, restless wandering (8) screaming in fear (9) Fluctuating level of consciousness, sometimes hyper alert, sometimes somnolent
- C Physical signs, findings: (1) big, dilated pupils (a) which don't get small even in bright light or when trying to see up close (2) dry (red?) skin (3) Fever (4) Rapid pulse (5) Convulsive seizures (6) unstable blood pressure.

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks
- B Episode lasted for (1) one or two (2) three to five (3) 10 to 20 (4) 30 to 40 (5) 50 to 60 (6) seconds (7) minutes
- C Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO:

- A Psychological stress: (1) one bad event (2) several bad events (3) long term work demands (4) other stress _____
- B Physical cause: (1) physical overwork (2) fall or blow (3) blast or concussion (4) natural infection (5) biological warfare agent (6) chemical exposure (7) chemical weapon (8) laser (9) microwave radiation (10) nuclear radiation (11) drug use (12) alcohol use
- C Doesn't have any idea (1) doesn't care (2) doesn't communicate

05 NEGATIVE FINDINGS:

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #308, 309

Case Sequence # _____

DX: DRUG DEPENDENCE/MISUSE, AMPHETAMINES (Stimulants)
(a) Mild, (b) Moderate, (c) Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted (a) under guard (3) In restraints (4) Confined to litter (a) unconscious
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (c) belligerent, threatening (d) defensive, cautious (e) trying to please, get support, manipulate (f) ignores examiner (g) easily confused, unreliable
- C Orientation: (1) Can't be determined (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (date) (f) where this is (h) what kind of place this is (i) own name (j) own rank (k) own unit (l) that is in the military (4) and says that doesn't know (5) and gives false answers (6) but remembers when told

02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off

- A Amphetamine overdose (1) Mental symptoms: (a) hyperalert, easily distracted, vigilant (b) jittery, jumpy (c) difficulty focusing attention (d) "High", euphoric (2) Paranoid features: (a) thinks everyone is thinking or talking about him/her (b) feels that his/her thoughts are being "broadcasted" and heard by others (c) feels that can hear other people's thoughts (d) feels own mind is being controlled by some outside agency (e) the KGB (f) the CIA (g) "radio control" (h) Feels that is being persecuted (i) Realizes there is a plot or conspiracy (j) "All the pieces fit together" (k) Believes he/she is God's messenger (l) has a special mission (m) Hearing a "voice" or "voices" (n) talking about him/her (o) calling bad names like (p) traitor (q) (3) Visual hallucinations: keeps seeing (f) enemy soldiers (g) tanks in the distance (h) enemy planes (4) Agitation, restless wandering (5) Physical signs, findings: (1) big, dilated pupils (2) Fever (3) Rapid pulse (4) Convulsive seizures (6) unstable blood pressure.

- B Amphetamine withdrawal: (1) Mental symptoms: (a) mind slowed down (b) just can't think (b) hungry, eat a lot (c) sleepy, can't stay awake (d) don't know what's wrong with me (d) I really messed up (2) Psychotic Depressive features: (1) feels utterly worthless (2) extreme guilt (3) "My insides are being eaten away by worms," (4) "I'm rotting inside" (5) "This is the End of the World" (6) Hears punishing, judging "voices" (7) Preoccupied with death, deserves to die (8) Broods about suicide (a) suicide plans (b) but feels too incompetent to attempt (c) "So bad that don't even deserve to be out of misery" (9) Homicidal ideas along with suicidal (a) feels must kill someone or others first).

03 HISTORY OF SYMPTOM ONSET (TIME COURSE):

- A Symptoms began: (1) while in action (2) during lull (3) after sleep (4) suddenly (5) gradually over (6) minutes (7) hours (8) days (9) weeks
- C Prior occurrences? (1) no (2) yes, but not so bad (3) yes

04 SOLDIER THINKS THIS CONDITION IS DUE TO:

- A Psychological stress: (1) one bad event (2) several bad events (3) long term work demands (4) other stress
- B Physical cause: (1) physical overwork (5) biological warfare agent (6) chemical exposure (7) chemical weapon (8) laser (9) microwave radiation (10) nuclear radiation (11) drug use (12) alcohol use
- C Doesn't have any idea (1) doesn't care (2) doesn't communicate

05 NEGATIVE FINDINGS:

(Clusters of symptoms vary with severity and should relate to Stress History)

Patient Class #306

Case Sequence # _____

DX: ALCOHOL DEPENDENCE/MISUSE, (& other CNS Depressants)
(a) Mild, (b) Moderate, (c) Severe

01 GENERAL STATUS:

- A Mobility: (1) Able to walk (a) with assistance (2) Escorted (a) under guard (3) In restraints (4) Confined to litter (a) unconscious
- B Cooperation with examiner: (1) Good (a) but limited by symptoms (2) Poor (3) Attitude is (a) sullen (b) hostile, angry (c) belligerent, threatening (d) defensive, cautious (e) trying to please, get support, manipulate (f) ignores examiner (g) easily confused, unreliable
- C Orientation: (1) Can't be determined (2) Knows (a) time (b) place (c) context (d) own identity (3) except doesn't know (a) time of day (b) day of week (c) day of month (date) (d) month (e) year (f) where this is (g) what country this is (h) what kind of place this is (i) own name (j) own rank (k) own unit (l) that is in the military (4) and says that doesn't know (5) and gives false answers (6) but remembers when told (7) and forgets when told

02 SYMPTOMS: (1) are still going on (2) have gone away (3) recur on and off

- A Drunk: (1) Smells of alcohol (1) mental confusion and "high" (2) impaired attention (3) poor recent memory (2) slurred speech (3) staggering gait (4) incoordinated, clumsy (5) poor judgement (6) poor awareness of performance impairment (7) quiet (8) crying (9) loud (10) laughing (10) argumentative (11) sleepy (12) stuporous (13) hard to arouse (14) can't be aroused (15) Depressed respiration (16) Cyanosis (17) fixed, dilated pupils
- B Hung over: (1) nausea (2) vomiting (3) red, bleary eyes (4) pounding headache (5) bothered by (a) bright light (b) noise (6) can't sleep (7) "You've got to give me something!" (a)
- C Withdrawal: (1) fine tremor of hands (2) sweating (3) diarrhea (4) anxious (5) can't sleep (6) awakened by bad dreams (7) 4 to 8 hours since last drink (9) obvious shaking of hands (a) of whole body (10) 16 to 24 hours since last drink
- D Delirium Tremens: (1) visual hallucinations, keeps seeing (a) bugs (b) rats (c) snakes (d) everywhere (e) enemy soldiers (7) is agitated (8) restless (9) fearful (10) falls down unconscious, goes stiff for a few seconds, then alternately relaxes and contracts all muscles (a) for half a minute (b) until given IV Valium (c) then is limp and unconscious for several minutes before slowly coming to (d) has no memory for the seizure (e) remains confused and disoriented

03 PATIENT ATTRIBUTES THIS TO:

- (a) Alcohol or drug use, i.e., gives an adequate history, or this is provided by friends (b) psychological reaction (c) chemical warfare agents (d) radiation exposure.

Bibliography of Recent Stress and Military Casualty Literature

- Abdennur, A. Combat reaction among a sample of fighters in the Lebanese civil war. *Psychiatric Journal of the University of Ottawa* (June 1980), 5(2): 125-128.
- Bar-On, S., Solomon, Z., Noy S., and Nardi, C. War related stress: an overview of the clinical picture in the 1982 conflict in Lebanon. Presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, January, 1983.
- Baycar, R.S., Aker, F., and Serowski, A. Burn casualties in combat: a need for protective garments. *Military Medicine* (March 1983), 148(3): 281-282.
- Belenky, G.L. SGRD-URI-B. Subject: OCONUS Trip Report - Visit to the Mental Health Department of the Israeli Defence Force June- July 1982. Battle Stress Casualties in the Israeli Defence Force During the War in Lebanon.
- Belenky, G.L., Noy, S., Solomon, Z., and Jones, F.D. Psychiatric Casualties (Battle Shock) in Israeli Defense Forces in the War in Lebanon June - September 1982.
- Belenky, G.L., Tyner, C.F., and Sodetz, F.J. Israeli Battle Shock Casualties: 1973 and 1982. WRAIR NP-83-4. August, 1983.
- Berchin, R.J. Medical unit survival on the modern battlefield. *Military Review* (June 1982), 62 (6): 62-74.
- Brooks, F.R., Xenakis, S.N., Ebner, D.G., and Balson, P.M. Psychological reactions during chemical warfare training. *Military Medicine* (March 1983), 148 (3): 232-235.
- Bull, P.T., Merrill, S.B., Moody, R.A., Baker, D.J., Yates, A., Geraghty, I.F., Tighe, S.Q.M., Squires, S.J., and Stoot, C.J.. Anaesthesia during the Falklands campaign. The experience of the Royal Navy. *Anaesthesia* (1983), 38: 770-775.
- Chermol, B.H. Psychiatric casualties in combat. *Military Review* (July 1983), 63 (7): 26-32.
- Chermol, B.H. The quiet enemy: combat stress. *Army* (September 1983), 33 (9): 18-25.
- Gabriel, R.A. Operation Peace for Galilee: The Israeli-PLO War in Lebanon. (Hill and Wang, 1984)
- Harris, J.J., Segal, D.R. Observations from the Sinai: boredom -- A peace-keeping irritant. Walter Reed Army Institute of Research.
- Hardaway, R.M. Wartime treatment of shock. *Military Medicine* (December 1982), 147 (12): 1011-1017.

Haslam, D.R. Sustained operations with special reference to operational clothing and combat equipment. Early Call 1,2, and 3. Presented to the Thirteenth Commonwealth Defence Conference on Operational Clothing and Combat Equipment, Malaysia, 1981.

Hastings, Max, and Jenkins, Simon. The Battle for the Falklands. W. W. Norton, New York 1983

Ingraham, L.H., and Manning, F.J. Cohesion: who needs it, what is it, and how do we get it to them? Military Review (June 1981): 61(6): 2-12.

Jowitt, M.D., and Knight, R.J. Anaesthesia during the Falklands campaign. The land battles. Anaesthesia (1983), 38: 776-783.

Koranyi, E.K. Psychobiological correlates of battlefield psychiatry. Psychiatric Journal of University of Ottawa (May 1977), 2(1): 3-17.

Levav, I., Grinfeld, H., and Baruch, E. Epidemiological aspects of psychiatric combat reaction. Harefuah (July 1978), 95(2): 53-57.

Llewellyn, C.H. Memorandum for Dean, School of Medicine. Uniformed Services University of the Health Sciences. Subject: Visit with Personnel of the Israeli Defense Force (8 - 17 Jan 1983).

London, P.S. Medical lessons from the Falkland Islands' campaign. The Journal of Bone and Joint Surgery (4 August 1983), 65-B: 507-510.

Michaeli, D. Medicine on the battlefield: a review. Journal of the Royal Society of Medicine (May 1979), 72: 370-373.

Miller, J.A. Combat stress reactions occurring in the Israeli Defense Force During The Lebanon Conflict of 1982. From 101st Airborne Division (AASLT) Ft. Campbell, KY.

Noy, S., Nardi, and Solomon, Z. Battle characteristics and the prevalence of combat psychiatric casualties. Presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, January, 1983.

Noy, S., Solomon, Z., and Benbenisht, R. The forward treatment of combat reactions: a test case in the 1982 conflict in Lebanon. Presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, January, 1983.

Noy, S. Battle intensity and length of stay in the battle field as determinants of the type of evacuation. Presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, January, 1983.

Richards, T. Medical lessons from the Falklands. British Medical Journal (5 March 1983) 286: 790-792.

Rock, Jr., S.K., and Schneider, R.J. Battle stress reactions and the Israeli experience in Lebanon: a brief summary. Medical Bulletin Europe (in press)

Sampson, J.B., Stokes, J.W., Barr, J.G., and Jobe, J.B. Injury and illness during cold weather training. *Military Medicine* (April 1983), 148 (4): 324-330.

Schlatter, E.K.E. Combat exhaustion. *Medical Bulletin U.S. Army Europe* (Feb 1981), 38(2): 15-21.

Schneider, R.J., and Luscomb, R.L. Battle stress reaction and the United States Army. *Military Medicine* (February 1984), 149: 66-69.

Sessions, G.R. Psychological effects of tactical nuclear warfare. Defense Nuclear Agency Intermediate Dose Program Report draft 7 September 1983.

Shaw, J.A. Comments on the individual psychology of combat exhaustion. *Military Medicine* (March 1983), 148 (3): 23-231.

Solomon, Z., and Noy, S. Who is at high risk for combat reaction? Presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, January, 1983.

Solomon, Z., and Oppenheimer, B. Subsequent military adjustment of soldiers who suffered from combat-reaction in the Yom-Kippur War. Presented at the Third International Conference on Psychological Stress and Adjustment in Time of War and Peace, Tel Aviv, Israel, January, 1983.

Williams, J.G., Riley, T.R.D., and Moody, R.A. Resuscitation experience in the Falkland Island campaign. *British Medical Journal* (5 March 1983), 286: 775-777.

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